



DEPARTMENT OF THE NAVY
COMMANDER NAVY REGION SOUTHWEST
937 NO. HARBOR DR.
SAN DIEGO, CA 92132-0058

IN REPLY REFER TO :

COMNAVREGSWINST 5090.1C
N45

16 NOV 2000

COMNAVREGSW INSTRUCTION 5090.1C

Subj: OIL AND HAZARDOUS SUBSTANCES (OHS) POLLUTION CONTINGENCY
PLAN

Ref: (a) OPNAVINST 5090.1B, Change 2, Navy Environmental and
Natural Resources Protection Manual
(b) CINCPACFLT 5400.12N, Command Support and Coordination
of Shore Activities
(c) Title 40, Code of Federal Regulations, Part 300, The
National Oil and Hazardous Substances Pollution
Contingency Plan

1. Purpose. This instruction is the contingency plan for
Commander, Navy Region Southwest, as the Navy On-Scene
Coordinator (NOSC), for planning and response to oil and
hazardous substance (OHS) pollution incidents originating from
U.S. Navy facilities and vessels.

2. Cancellation. COMNAVBASESANDIEGOINST 5090.1B.

3. Scope. This plan combines OHS pollution contingency
planning into a single document. Where information is intended
to apply strictly to oil, the term oil discharge, in lieu of OHS
pollution incident, is used. Likewise, the term hazardous
substance (HS) release is used to differentiate procedures,
policies, or requirements that are unique to hazardous
substances.

4. Background. The Navy environmental program is described in
the Environmental and Natural Resources Protection Manual,
reference (a). That instruction establishes the Navy's
organization of regional NOSC's and activity Facility Incident
Commanders (FICs) and requires that contingency plans be
prepared for OHS pollution incident response.

5. Discussion

a. The CINCPACFLT Command Support and Coordination of Shore
Activities, reference (b), designates the Regional Commander as
the NOSC for developing contingency plans and directing or
coordinating OHS pollution incident response efforts for Navy-

generated OHS pollution incidents within the assigned AOR. This plan has been developed to ensure timely, coordinated, response actions and compliance with applicable environmental regulations.

b. For oil discharges from Navy vessels or facilities located within the coastal zone, the cognizant Coast Guard Captain of the Port shall serve as Federal OSC, in accordance with the National Contingency Plan (NCP) (40 CFR 300). The Coast Guard, as Federal OSC for these spills, shall direct all public and private response actions. Under Coast Guard guidance, the NOSC/FIC shall direct the Navy's response in accordance with this plan and with appropriate federal regional contingency plans.

c. For hazardous substance releases from Navy vessels or facilities, the NOSC shall also serve as the Federal On-Scene Coordinator (OSC) in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan, reference (c). For such releases, the NOSC/FIC shall direct the response in accordance with this plan and with appropriate application of the federal regional contingency plans.

6. Geographic Assignment

a. The area of responsibility for COMNAVREG SW is that area assigned for regional area coordination by the CINCPACFLT Command Support and Coordination of Shore Activities, reference (b). This area includes the state of California, Arizona and Nevada. In accordance with reference (a), COMNAVREG SW is also responsible for Navy OHS incidents which occur at sea within 12 nautical miles (nm) of the assigned shoreline, although this has been extended to 24 nm to support a recent Executive Order.

b. Reference (b) designates FICs and areas of responsibility. Geographic AOR assignments and specific responsibilities are listed below:

(1) Commander, Navy Region, Southwest: All of Arizona and areas within San Diego County not specifically assigned below.

(2) Commanding Officer, Naval Air Reserve, Santa Clara: Del Norte, Siskiyou, Shasta, Trinity, Humboldt, Mendocino, Tehama, Butte, Yuba, Sutter, Glenn, Lake, Colusa, Sonoma, Marin, Napa, Yolo, Solano, Contra Costa, San Joaquin, Sacramento,

18 NOV 2000

Amador, Calaveras, San Mateo, Alameda, San Francisco, and Santa Clara counties.

(3) Commanding Officer, Naval Air Station, Fallon: Modoc, Lassen, Plumas, Sierra, Nevada, Placer, El Dorado, Alpine, and Mono counties in Northern California plus all counties in Nevada less Clark County.

(4) Commanding Officer, Naval Air Station, Lemoore: Stanislaus, Merced, Fresno, Kings, Tulare, Madera, Mariposa, Tuolumne, and western Kern counties. Western Kern County is that area west of the Sierra Nevada Mountain Range.

(5) Superintendent, Naval Postgraduate School, Monterey: Santa Cruz, Monterey, San Benito, and San Luis Obispo counties.

(6) Commanding Officer, Naval Base Ventura County: Santa Barbara, Ventura, and Southern Los Angeles County. Southern Los Angeles County is defined as that area south of the San Gabriel Mountains.

(7) Commanding Officer, Naval Air Weapons Station, China Lake: Inyo, eastern Kern County (that area east of the Sierra Nevada Mountain Range to include Lake Isabella, Kernville, and Tehachapi), northern San Bernardino county (that area north of the San Gabriel Mountains), and northern Los Angeles county (the Greater Antelope Valley/that area north of San Gabriel Mountains) plus Clark County in Nevada.

(8) Commanding Officer, Naval Weapons Station, Seal Beach: Orange and Riverside counties, southern San Bernardino county (defined as that area south of the San Gabriel/San Bernardino Mountains), and Naval Weapons Station, Seal Beach Detachment Fallbrook.

(9) Commanding Officer, Naval Air Facility, El Centro: Imperial County.

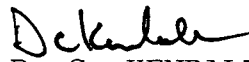
(10) Commanding Officer, Naval Base Coronado: NAS North Island, Amphibious Annex, OLF Imperial Beach and the SERE compound at Warner Springs and San Clemente Island.

(11) Commanding Officer, Naval Base San Diego: Naval Station San Diego, Naval Medical Center San Diego and FISC (Broadway) complexes.

16 NOV 2000

(12) Commanding Officer, Naval Base Point Loma: Point Loma and Fleet ASW Training Center complexes.

7. Action. All commands in the Commander, Navy Region Southwest area of responsibility shall review the policy and procedures described in this plan and take appropriate actions to ensure compliance with this instruction. All commands shall also ensure that all guidance and instruction to fleet ships and units such as Senior Officer Present Afloat (SOPA) instructions contain procedures and guidance consistent with this instruction. Nothing contained in this instruction shall be interpreted as curtailing the initiative or limiting the normal authority of any commander, commanding officer, or officer-in-charge. Commands are encouraged to submit comments and recommendations regarding this plan to the NOSC.



D. C. KENDALL

Deputy and Chief of Staff

Distribution:

www.cnrsw.navy.mil/admin/menu.htm

TABLE OF CONTENTS

CHAPTER 1: EMERGENCY RESPONSE AND REPORTING PROCEDURES

1.1 INTRODUCTION

1.2 NOSC EMERGENCY RESPONSE PROCEDURES

CHAPTER 2: PLAN SCOPE AND RESPONSIBILITIES

2.1 OBJECTIVES

2.2 RESPONSIBILITIES

2.2.1 Authority

2.2.1.1 NOSC

2.3 NAVY COMMAND AND COORDINATION

2.3.1 Chain of Command

2.3.2 Delegation of Responsibility

2.3.3 On-Scene Command

2.3.4 NOSC Responsibilities

2.3.5 FIC Responsibilities

2.3.6 Navy Ship, Unit, and Shore Responsibilities

2.3.7 CNRSW Staff Responsibilities

2.3.7.1 NOSC Program Manager

2.3.7.2 N00PA - Public Affairs Officer

2.3.7.3 N2 - ACOS, Public Safety

2.3.7.4 N3P - ACOS, Port Operations

2.3.7.5 N451 - Regional Environmental Program Director

2.3.7.6 N5 - Staff Judge Advocate

2.3.7.7 N8 - Comptroller

2.4 FEDERAL AND REGIONAL COORDINATION

2.5 SALVAGE RELATED INCIDENTS

2.5.1 Jettisoning of Oil

2.6 NON-NAVY INCIDENTS

2.7 NAVY NATURAL RESOURCES TRUSTEE RESPONSIBILITIES

2.7.1 Authority

2.7.2 Spill Response

2.7.3 NOSC Involvement

2.8 CLAIMS FOR DAMAGES OR COMPENSATION

2.9 INVESTIGATIONS

2.10 SECURITY

2.11 VOLUNTEER SUPPORT

CHAPTER 3: SPILL PREVENTION AND RISK MANAGEMENT

3.1 OPERATIONAL RISK MANAGEMENT (ORM)

3.1.1 Regional Oil Spill Working Group (ROSWG)

3.2 SHIP AND SHIP/SHORE EVOLUTIONS

3.2.1 Spill Prevention

3.2.1.1 Oily Waste (OW) Management

3.2.1.2 Containment Booming for Vessels

3.2.1.3 Inport Refueling Request Process

3.2.2 Non-Navy Port Requirements

3.2.2.1 Coordination Support

3.2.2.2 Environmental Risk Management

3.3 SHORE FACILITIES

CHAPTER 4: REPORTING REQUIREMENTS

4.1 PURPOSE

4.2 AUTHORITY

4.3 REPORTING REQUIREMENTS

4.3.1 Reporting procedures

4.3.2 Reporting Responsibility

4.3.3 Reportable Quantity (RQ) for Oil

4.3.4 Reportable Quantity (RQ) for HS

4.3.5 Sewage/CHT, "Gray Water," and AFFF

CHAPTER 5: RESPONSE MANAGEMENT/CONDUCT OF OPERATIONS

5.1 NOSC INCIDENT COMMAND SYSTEM (NICS)

5.1.1 Unified Command

5.2 INCIDENT MANAGEMENT

5.2.1 RESPONSE PHASES

5.2.2 PRIORITIES

5.2.1 Responding Activity Responsibilities

5.2.2 NOSC Responsibilities

5.3 NOSC RESPONSE ORGANIZATION

5.3.1 Incident Command

5.3.2 NOSC OHS Incident Spill Management Team

5.3.2.1 Navy on-scene Incident Commander (NOSIC)

5.3.3 NOSC Command Staff

5.3.3.1 Safety Officer

5.3.3.2 Legal Officer

5.3.3.3 Public Affairs Officer

5.3.3.4 Government Liaison Officer

5.3.4 Functional Sections

5.3.4.1 Operations Section

- 5.3.4.3 Logistics Section
- 5.3.4.4 Finance Section
- 5.3.5 ICS Branch/Unit Duties and Responsibilities
- 5.3.6 Response Team Support

5.4 AREA RESPONSE CENTER

CHAPTER 6: RESPONSE MANAGEMENT - FINANCE

6.1 FINANCE

6.2 POLLUTION RESPONSE FUNDING

- 6.2.1 Initial Emergency Funding
- 6.2.2 Policy and Procedures
- 6.2.3 Funding Limitations
- 6.2.4 Estimating Clean Up Costs

6.3 LOCAL/STATE GOVERNMENT SERVICES

6.4 CONTRACTING

- 6.4.1 Contracting Authority
- 6.4.2 Contracting Staff Support

6.5 REIMBURSEMENT OF FUNDS

- 6.5.1 Navy Reimbursement Procedures
- 6.5.2 DLA/DFSC Reimbursement Procedures
- 6.5.3 Non-DOD Reimbursement Procedures

6.6 FUNDING DOCUMENTATION

6.7 COST VERIFICATION

CHAPTER 7: TRAINING

7.1 GENERAL REQUIREMENTS

- 7.1.1 Activity OHS Training Plan (AoTP)
 - 7.1.1.1 ATOP Preparation and Submission
 - 7.1.1.2 Record Keeping

7.2 TRAINING FOR QUALIFIED INDIVIDUAL

7.3 TRAINING FOR SPILL MANAGEMENT TEAMS

7.4 TRAINING FOR FACILITY PERSONNEL

APPENDIX A: POINTS OF CONTACT

A.1 Emergency (24 Hour) Contacts

A.2 NAVY PROGRAM CONTACTS

A.3 LOCAL GOVERNMENT ADMINISTERING AGENCIES

16 Nov 00

APPENDIX B: RESPONSE SECTORS

B.1 RESPONSE SECTOR INFORMATION

APPENDIX C: SPECIAL CONSIDERATIONS

- C.1 ABANDONED HAZARDOUS SUBSTANCES (HS)**
- C.2 BOOMING DESIGNATED SENSITIVE AREAS**
- C.3 COLLISIONS WITH COMMERCIAL SHIPS**
- C.4 COORDINATION WITH ANOTHER NOSC(s)**
- C.5 FEDERAL, STATE AND LOCAL REGULATORS**
- C.6 CNRSW FOSC RESPONSIBILITIES FOR HS RELEASES**
- C.7 FISC SD FUEL FACILITY, RISK AND SPECIAL RESPONSE**
- C.8 INTEGRATION WITH OUTSIDE RESPONSE TEAMS**
- C.9 LAND SPILLS THAT IMPACT WATERS - FIC RETAIN CONTROL**
- C.10 SPILL RESPONSE IN PRIVATE SHIPYARDS**
- C.11 MEDIA (PUBLIC RELATIONS) MANAGEMENT**
- C.12 MSC/MARITIME ADMINISTRATION (MARAD) SUPPORT**
- C.13 NOAA TECHNICAL SUPPORT**
- C.14 NATURAL RESOURCE DAMAGE ASSESSMENT (NRDA)**
- C.15 NEAR SHORE**
- C.16 NON-FRT FACILITIES (FOR OIL SPILLS)**
- C.17 NON-NAVY INCIDENTS**
- C.18 NOSC AREA OF RESPONSIBILITY (AOR)**
- C.19 NOSC ASSUMPTION OF OPERATIONAL CONTROL**
- C.20 NEAR SHORE SUPPORT REQUIREMENTS**
- C.21 OILED WILDLIFE**
- C.22 QUALIFIED INDIVIDUAL**
- C.23 SAN CLEMENTE ISLAND (SCI) REQUIREMENTS**
- C.24 SAN NICOLAS ISLAND (SNI) REQUIREMENTS**

- C.25 SAN DIEGO OIL SPILL RESPONSE ORGANIZATION**
- C.26 SHORELINE CLEAN UP**
- C.27 SUPSALV (SUPERVISOR OF DIVING AND SALVAGE)**
- C.28 VISITING SHIPS AND NAVY SHIPS TO NON-NAVY PORTS**

APPENDIX D: RESPONSE RESOURCES

D.1 NAVY EQUIPMENT

- D.1.1 SUPSALV Equipment
- D.1.2 Facility Equipment

D.2 COMMERCIAL RESOURCES

D.3 TECHNICAL ADVISORS

- D.3.1 USCG Supervisor of Salvage (SUPSALV)
- D.3.2 Naval Facilities Engineering Command
- D.3.3 NOAA
- D.3.4 Regional Response Teams (RRTs)
- D.3.5 U.S. EPA
- D.3.6 Hazardous Substance Release Support

APPENDIX E: ICS FORMS AND CHECKLISTS

APPENDIX F: INTER-AGENCY AGREEMENTS AND GEOGRAPHIC BOUNDARIES

- F.1 EPA - COAST GUARD GEOGRAPHIC BOUNDARY**
- F.2 NAVY - COAST GUARD INTERAGENCY AGREEMENT**

APPENDIX G: OIL SPILL REPORTING PROCEDURES

G.1 GENERAL REQUIREMENTS

- G.1.1 Initial Voice Reports
 - G.1.1.1 Initial Voice Report Procedures
- G.1.2 Follow-up Message Reports
- G.1.3 After Action Reports
- G.1.4 ISIC Inquiry

APPENDIX H: HAZARDOUS SUBSTANCE REPORTING PROCEDURES

- H.1 GENERAL REQUIREMENTS**
- H.2 INITIAL VOICE REPORTS**
- H.3 FOLLOW-UP MESSAGE REPORTS**
- H.4 AFTER ACTION REPORTS**

16 Nov 00

APPENDIX I: SITE SAFETY PLAN

- I.1 SITE-SPECIFIC SAFETY PLAN**
- I.2 MEDICAL MONITORING**
- I.3 RECORDS AND REPORTS**
- I.4 HEALTH HAZARDS**
- I.5 NAVY SAFETY AND HEALTH PROGRAM**
- I.6 SITE-SPECIFIC SAFETY PLAN**
- I.7 SAFETY BRIEFING**
- I.8 AUDITS**
- I.9 GENERIC SITE SAFETY PLAN**
- I.10 PPE ENSEMBLES**
- I.11 GENERAL SIGNS/SYMPTOMS THAT INDICATE POTENTIAL TOXIC EXPOSURES**
- I.12 MANIFESTATIONS OF TOXIC EFFECTS TO VARIOUS TARGET ORGANS**
- I.13 HEAT STRESS INFORMATION FROM NIOSH 86-112 HEALTH**
- I.14 BULK LIQUID CARGOES THAT CONTAIN BENZENE**

APPENDIX J: WILDLIFE MANAGEMENT

- J.1 INTRODUCTION**
- J.2 RESPONSE PRIORITIES**
 - J.2.1 No Response Action
 - J.2.2 Primary Response Strategy
 - J.2.3 Secondary Response Strategy
 - J.2.3.1 Wildlife Deterrent Techniques
 - J.2.3.2 Preemptive Capture
 - J.2.3.3 Prioritization of Secondary Response Strategies
 - J.2.3.4 Legal Requirements for Secondary Response Strategies
 - J.2.4 Tertiary
- J.3 IDENTIFICATION OF WILDLIFE RESPONSE ORGANIZATIONS**
- J.4 FEDERAL AND STATE REQUIREMENTS AND POINTS OF CONTACT**
 - J.4.1 U. S. Fish and Wildlife Service (USFWS)
 - J.4.2 National Marine Fisheries Service (NMFS)
 - J.4.3 Natural Resource Policies, Regulations, and Statutes Applicable to Oiled Wildlife Management
- J.5 REFERENCES**

APPENDIX K: U.S. NAVY ADMIRALTY CLAIMS GUIDANCE

APPENDIX L: DRILLS AND EXERCISE PROCEDURES

L.1 TRAINING LOGS

L.2 DRILLS AND EXERCISE LOGS

L.3 DISCHARGE PREVENTION MEETING LOGS

APPENDIX M: CERCLA AND TITLE III REPORTABLE QUANTITIES

APPENDIX N: REFERENCES

APPENDIX O: LIST OF ACRONYMS

APPENDIX P: NON-NAVY PORT CHECKLIST

This page intentionally left blank.

Chapter 1

EMERGENCY RESPONSE AND REPORTING PROCEDURES

1.1 INTRODUCTION



In the event of an actual Oil/Hazardous Substance (OHS) pollution incident, turn immediately to section 1.2 (next page) and complete the numbered incident response sequence in order.

This CHAPTER is designed to provide a user-friendly approach to ensure that timely and effective response actions are carried out in the event of a Navy OHS pollution incident occurring within the CNRSW area of responsibility (AOR). This area includes:

- ♦ California, and adjoining coastal waters out to 12 nautical miles
- ♦ Arizona
- ♦ Nevada.

CNRSW, as the Navy On-Scene Coordinator (NOSC), is responsible for ensuring that a proper response is conducted for all reported OHS pollution incidents; and if beyond the capability of the local Navy official assigned, assume control of the incident and direct the response. There are many operational and regulatory requirements attendant to OHS pollution incidents, and adherence to this chapter will ensure compliance requirements are met while conducting an effective response.

1.2 NOSC EMERGENCY RESPONSE PROCEDURES

1. Upon notification of a pollution incident **COMPLETE** the OHS Incident Summary checklist (Form OHS1) on page 1-13.



Most reported incidents will be oil spills in San Diego Bay. CO, Naval Base San Diego (formerly Naval Station), is responsible for ensuring a prompt, effective response to all Navy oil spills on the waters of the Bay, and directs this through Central Oil Recovery (COR) at 556-8006. For any issues concerning Navy spills in the Bay, contact COR directly, or the Port Operations Officer at 556-3146; 556-1433 (after work hours).



Primary means of notification to the NOSC will be via telephone (619) 524-2314, which is covered on a 24-hour basis by the Assistant Staff Duty Officer (ASDO). Any notifications received via any other means must be forwarded to the ASDO for appropriate action.



Utilize telephone (installed or cell) as primary means of communications. Initial on-scene response coordination will be worked at the lowest possible local level in accordance with the affected/reporting activity. For local San Diego operations: If unable to maintain telephone communications, the primary radio channel in San Diego Bay is bridge-to-bridge channel 81A (157.075 MHz); for hazardous substance incidents use Regional VHF Emergency Frequency (140.850MHz).

2. DETERMINE Response Sector:

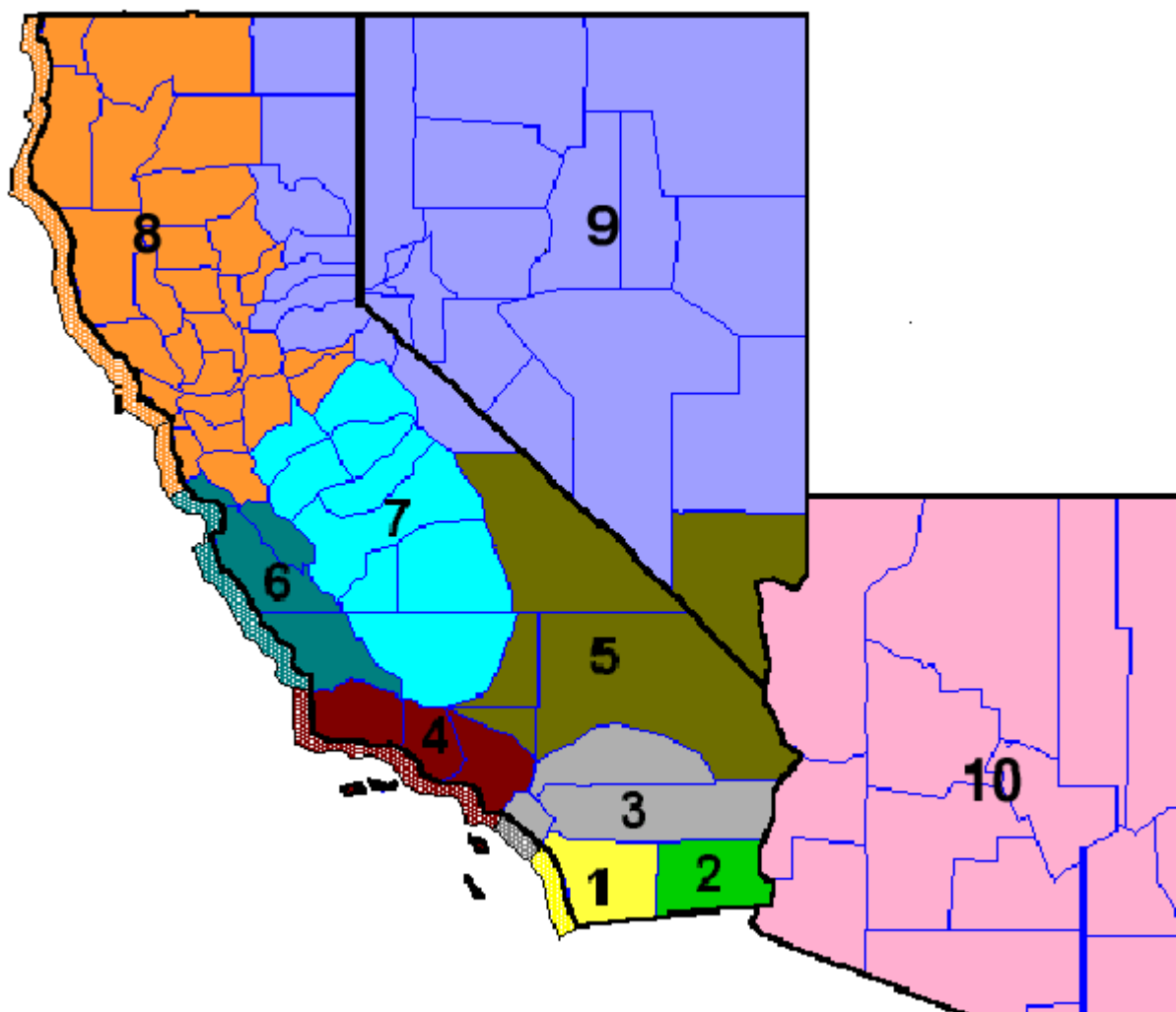


The CNRSW AOR encompasses the States of California, Nevada, and Arizona, and coastal waters out to 12 nautical miles. This AOR is subdivided into ten sectors, each with an assigned Local Area Coordinator (LAC). The assigned LAC will oversee Navy actions in the case of an OHS incident in their assigned area as appropriate, until completion of response activities, or relieved by a designated NOSC representative. See Figure 1-1 for Sector assignments.

Figure 1-1

CNRSW AOR
SECTOR LOCAL AREA COORDINATORS (LACs)

- | | |
|------------------------------|-------------------------------------|
| 1 - CNRSW | 6 - NAVPGSCOL |
| 2 - NAF EL CENTRO | 7 - NAS LEMOORE |
| 3 - NWS SEAL BEACH | 8 - NAVAIRRESCEN SANTA CLARA |
| 4 - NB VENTURA COUNTY | 9 - NAS FALLON |
| 5 - NAWS CHINA LAKE | 10 - CNRSW |



3. ASSESS if incident is a reportable quantity (RQ):

OIL discharges include oil of any kind. This includes animal, vegetable, or petroleum-based oil of any kind or in any form, including, but not limited to, fuel oil, sludge, oil refuse, oil mixed with other wastes other than dredge spoils and refined products such as gasoline, diesel, jet fuel, and cooking oil.

REPORTABLE QUANTITY (RQ)**FOR OIL SPILLS:**

IN WATER - All Navy-generated oil discharges to the bay and coastal waters of the U.S. (out to 24 NM) or with the potential to reach the water shall be immediately reported, regardless of quantity. Also, any unknown discharge that causes a sheen, sludge, or emulsion shall be reported when discovered.

ON LAND - Spills that pose a threat to safety and health or threaten to enter the water shall be reported. Also, any discharge greater than 42 gallons that is outside an established containment area, or greater than 100 gallons inside a containment area, shall be reported.

FOR HS RELEASES: A quantity that meets or exceeds the criteria listed in Appendix M, or 40 CFR, part 302; or which poses a threat to public health or safety is considered an RQ and must be reported to the National Response Center (NRC), appropriate state office of emergency services, and local agencies as required. Quantities are the same for spills on land or in water. If uncertain of HS RQ, request assistance from Federal Fire. If uncertain as to what notifications are required request guidance from supporting FOSC.



WHEN IN DOUBT, REPORT!

4. If incident is a reportable quantity (RQ), ENSURE following notifications are made:

FOR RQ SPILLS IN CALIFORNIA:

National Response Center (NRC): (800) 424-8802

California

Office of Emergency Services (OES): (800) 852-7550

AND APPROPRIATE SECTOR:

SECTOR 1

LAC:	CNRSW	DSN 524-2314 or (619) 524-2314
FOSC (OIL):	MSO San Diego	(619) 683-6470
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

SECTOR 2

LAC:	NAF EL CENTRO	(DSN) 958-8699 (760) 339-2699/2524
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

SECTOR 3

LAC:	NWS SEAL BEACH	DSN 873-7101 (562) 594-7101
FOSC (OIL):	MSO LONG BEACH/LOS ANGELES	(562) 980-4445
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

16 Nov 00

SECTOR 4

LAC:	NB VENTURA COUNTY	DSN 551-4571/4576 (805) 982-4571/4576
FOSC (OIL):	MSO LONG BEACH/LOS ANGELES	(310) 626-6069
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

SECTOR 5

LAC:	NAWS CHINA LAKE	DSN 437-2303 (760) 939-2303
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

SECTOR 6

LAC:	NAVPGSCOL	DSN 878-2441 (408) 656-2441/2531
FOSC (OIL):	MSO SAN FRANCISCO	(510) 437-3073
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

SECTOR 7

LAC:	NAS LEMOORE	DSN 949-3300 (209) 998-3300/3301
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

SECTOR 8

LAC:	NAVAIRRESCEN SANTA CLARA	DSN 359-9527 (415) 603-9527
FOSC (OIL):	MSO SAN FRANCISCO	(510) 437-3073
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

FOR RQ SPILLS IN NEVADA:

National Response Center (NRC):	(800) 424-8802
Nevada Department of Conservation and Natural Resources Division of Emergency Management:	(702) 687-4240

AND APPROPRIATE SECTOR:

SECTOR 5 (Clark County)

LAC:	NAWS CHINA LAKE	DSN 437-2303 (760) 939-2303
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

SECTOR 9 (All Nevada except Clark County)

LAC:	NAS FALLON	DSN 830-2714/5 (702) 426-2714/5
FOSC (HS):	EPA Region IX	NRC notification satisfies requirement.

16 Nov 00

FOR RQ SPILLS IN ARIZONA:**National Response Center (NRC): (800) 424-8802****Arizona Division of Emergency
Management, Response, Recovery,
Mitigation: (520) 628-5478****SECTOR 10****LAC: CNRSW DSN 522-1828
(619) 532-1828****FOSC (HS): EPA Region IX NRC notification satisfies requirement.**

5. MAINTAIN contact with the reporting Facility Incident Commander (FIC) for regular updates. **DETERMINE** if additional assistance is required:



HS emergency response operations pose a significant potential for causing serious harm, including injury and death to personnel involved, as well as extensive environmental impact. HS incidents are extensively planned for and responded to at the local activity and government level. It is essential to manage these events, on-scene, if possible, with properly trained response personnel who are familiar with the response environment. CNRSW, however, is the Federal On-Scene Coordinator (FOSC) for HS incidents occurring on Navy facilities, and as such, must ensure that a satisfactory response is conducted.

6. CONTACT the following personnel and provide incident assessment information collected on the checklist on page 1-13:

CNRSW NOSC PROGRAM MANAGER

Office: (619) 532-1824 / 24 Hour (619) 524-2314

Cellular Phone: (619) 954-8991

Numeric Pager: (619) 556-5500 Destination 5745

Voice Pager: (619) 556-8901 Destination 574

CNRSW STAFF DUTY OFFICER (SDO)

IAW Current SDO Recall/Notification List



If there are is any potential for a spill to impact the marine mammal pens at Point Loma or NAB Coronado Contact the following:

Point Loma: SPLC Duty Veterinarian (pager) (619) 493-1311
NAB Coronado: EODMU 3 Quarterdeck: (619) 437-2906



*In the event wildlife is oiled or potentially oiled,
contact the CNRSW NRDA Coordinator
at (619) 532-3744/(877) 206-5232 pager*



*If local site assessment is required,
request assistance from the following
CNRSW Field Level Response Teams (FLRT).*

FLRT OIL

CNRSW NOSC PROGRAM MANAGER

Office: (619) 532-1824 / 24 Hour (619) 524-2314
Cellular Phone: (619) 954-8991
Numeric Pager: (619) 556-5500 Destination 5745
Voice Pager: (619) 556-8901 Destination 5745

CNRSW PORT OPERATIONS

24-HR: (619) 556-8006

FLRT HS

CNRSW NOSC PROGRAM MANAGER

Office: (619) 532-1824/ 24 Hour (619) 524-2314
Cellular Phone: (619) 954-8991
Numeric Pager: (619) 556-5500 Destination 5745
Voice Pager: (619) 556-8901 Destination 5745

FEDERAL FIRE DEPARTMENT

24-HR: (619) 524-2001/2006

7. If additional assistance is required:

FOR OIL SPILLS:

DETERMINE amount of assistance required and contact other NAVY/DOD activities and pre-designated response support providers as follows:



For all oil spills requiring response assets beyond local capability, request assistance from SUPSALV first, then local contract assets and FOSCs. If SUPSALV assets will be available to support response requirements in a timely manner use them first, followed by other response organizations. This allows maintaining Navy control and minimizing potential costs. While it is essential to use sufficient assets, costs can quickly get excessive with local private contractors. Ensure these actions are closely coordinated with the FOSC. If unable to satisfy FOSC requirements, REQUEST support from the FOSC.

FOR ALL AREAS:**FOR MAJOR/OFFSHORE INCIDENTS**

Request SUPSALV support via NAVSEA Duty Officer	COM: (703) 602-7527/607-2758 DSN: 227-7527
SUPSALV West Coast Operations Manager	COM: (805) 982-4463 CELL: (209) 986-7338

FOR SHIPS IN NON-NAVY CALIFORNIA PORTS

INCHCAPE Ship Services	24 HRS: (415) 546-6920
------------------------	------------------------

PLUS COGNIZANT SECTOR FOSC (if required):

SECTOR 1	MSO SAN DIEGO	(619) 683-6470
SECTOR 2,4	MSO LOS ANGELES/ LONG BEACH	(562) 980-4445
SECTOR 6,8,9	MSO SAN FRANCISCO	(510) 437-3073

FOR HAZARDOUS SUBSTANCE INCIDENTS:

Utilize mutual aid agreements as previously arranged by Federal Fire Department, and/or affected local Office of Emergency Services (OES).

8. If additional assets are required, **ALERT** CNRSW NOSC Command Staff and FLRT:

<u>Code</u>	<u>Directorate</u>	<u>Phone</u>
N01	Chief of Staff	532-2925 Cell: (619) 988-9873
N00PA	Public Affairs Officer	532-1431 Cell: (619) 887-9345 Pager: (619) 896-5824
N45	ACOS Environmental Programs	553-7400
N5	Staff Judge Advocate	532-1428
N8	Comptroller	532-1570/1405
FLRT	NOSC Program Manager	532-1824



24 HR phone numbers are located in the CNRSW Recall Bill.

9. **ACTIVATE** the CNRSW Command Staff and Emergency Operations Center (EOC) when directed by 00, N01, N2 or SDO:

On-Scene OHS incident response will be conducted through the affected FIC/QI's incident command/operations center. CNRSW response and the EOC operations will be managed in accordance with the Regional Emergency Management Plan (CNRSWINST 3440.1 (series)).

10. If the CNRSW Emergency Operations Center (EOC) is activated, do the following immediately:

- ☐ Establish communications with EOC at 524-2314. Ensure ICS 201 is posted and filled out.
- ☐ Provide current incident information to EOC including the checklist on page 1-13. Continue to record events as reported until relieved.

16 Nov 00

- ☐ Break out and display appropriate charts/maps of the affected area.
- ☐ Bring up appropriate communications channels if incident is within local area (San Diego Bay/metropolitan area). Monitor.
- ☐ Monitor appropriate television/radio news service.
- ☐ Brief arriving watchstanders as necessary, using ICS 201, and PROVIDE incident summary and other spill management/ICS tools.

11. Upon completion of the evolution, ENSURE:

- ☐ The spiller or the local FIC/QI submits the appropriate hard copy OHS Spill and After Action Reports in accordance with Appendices G and H of this instruction.
- ☐ All parties involved have been notified of completion of response actions.

12. Complete log of incident, and provide copy as final report to the NOSC Program Manager and Staff Duty Officer (as appropriate).

13. NOSC Program Manager will conduct follow-on review and investigation and forward copies via e-mail to N01, appropriate ACOS, N45, and N53.

CNRSW AOR
OHS INCIDENT SUMMARY
VITAL INFORMATION

1. Date and Time of Incident: _____
2. Name of Caller: _____ Return Phone _____
3. Location of Spill: _____ Response Sector _____
4. Type of Material: _____
5. Quantity: _____
6. Status of Response Actions: _____
7. Immediate Danger to Life or Health: _____
8. On-Scene Incident Commander: _____
9. Is it a reportable quantity?: YES _____ NO _____ Determined by? _____
10. If reportable, who is making reports?: _____
11. Reports made to: NRC: _____ State: _____ MSO: _____
12. Estimated Time of Completion: _____
13. Notified: NOSC PM _____ SDO _____ Other _____

Form OHS1

COMNAVREGSWINST 5090.1C
16 Nov 00

This page intentionally left blank.

Chapter 2

PLAN SCOPE AND RESPONSIBILITIES

2.1 OBJECTIVES

The guidance contained in this plan provides the tools necessary to meet the following oil and hazardous substance incident management goals within the Commander, Navy Region Southwest AOR:

- (1) **Prevent** pollution incidents through effective planning, training, and operational risk management;
- (2) **Maintain** operational flexibility for all Navy mission areas;
- (3) **Comply** with all applicable Federal, state, and local environmental regulatory requirements;
- (4) **Conduct** thorough contingency planning efforts through a focused program of preparation and cooperation;
- (5) **Carry out** timely and effective response operations for all Navy OHS pollution incidents, including accurate, comprehensive reporting; and
- (6) **Retain** Navy control of all response activities.

2.2 RESPONSIBILITIES

2.2.1 AUTHORITY

Regional goals are managed through the Navy On-Scene Coordinator (NOSC) Program, with the Commander, Navy Region Southwest designated NOSC responsibilities in accordance with reference (b). The program utilizes existing Navy organizations and chains of command to the maximum extent possible. It ensures a timely and effective response to all appropriate OHS incidents, including a cognizant Navy official to provide on-scene coordination and represent the Navy's interests.

2.2.1.1 NOSC

As directed in CNRSWINST 3123, to support effective management of NOSC requirements, CNRSW N45, ACOS Environmental Programs, is responsible for coordination of the NOSC Program, with the NOSC Program Manager (N45N) directly responsible for execution. As such, CNRSW N45, or N45N when directed, represents the Commander in all matters relating to oil and hazardous substance contingency planning and response.

DEPUTY NOSC

For actual incident response management, key CNRSW staff members will serve as Deputy NOSC, and are responsible to the Commander for conduct of operations until concluded, or until relieved. The following assignments are effective:

16 Nov 00

<u>Oil spills:</u>	In water:	Metro San Diego, including all Bay waters	N3P
		All other areas in the CNRSW AOR, including outside harbors, bays, and facility boundaries (out to 24 NM)	N45
	Land:	All areas	N2
<u>HS releases:</u>	In water:	Metro San Diego, including all Bay waters	N3P
		All other areas in the CNRSW AOR, including outside harbors, bays, and facility boundaries (out to 24 NM)	N45
	Land:	All areas	N2

COMMANDER, THIRD FLEET SUPPORT

When requested, CNRSW will serve as Deputy NOSC for OHS incidents in the COMTHIRDFLT AOR (outside 24 NM, or with the potential to enter the CNRSW AOR). As such, N45 will coordinate with COMTHIRDFLT and represent Navy interests with the appropriate FOSC. Specific procedures are contained in the COMTHIRDFLT NOSC Plan.

The plan provides assignments, responsibilities, and response procedures to establish an effective OHS response structure and ensure long term consistency in regional program management.

To accomplish full response oversight coverage for the region, the CNRSW AOR is divided into ten sectors.

2.3 NAVY COMMAND AND COORDINATION

2.3.1 CHAIN OF COMMAND

The Navy OHS spills contingency planning and response organization, geographic assignments, and coordination responsibilities are delineated in references (a) and (b) and are amplified in this instruction. All OHS spill responses shall be conducted within the responsibility and authority of designated chain of command.

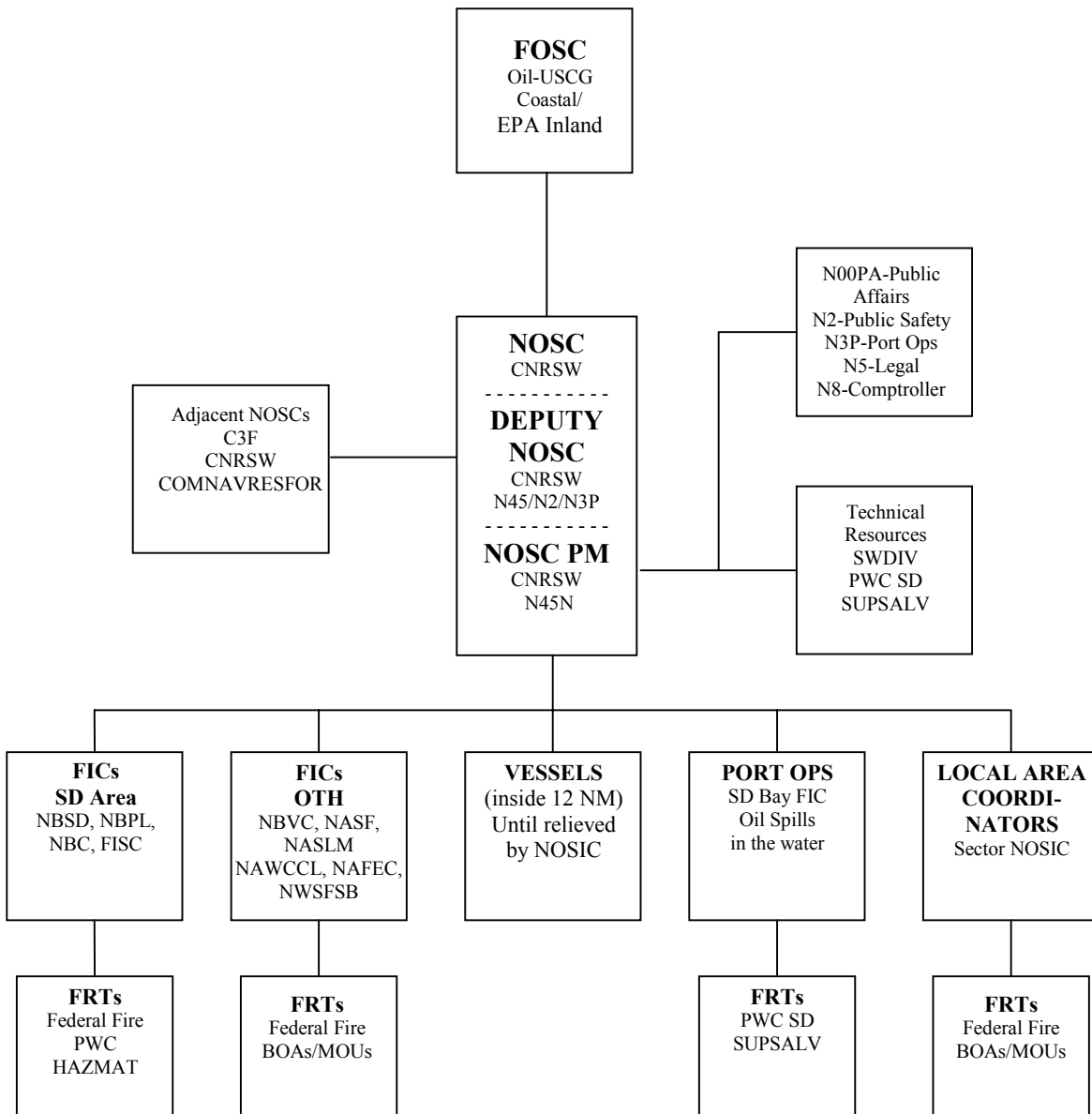


Figure 2.1 NOSC Spill Management Organization

2.3.2 DELEGATION OF RESPONSIBILITY

The NOSC and FIC(s) are the primary officials with authority to conduct OHS response activities for the Navy. This authority is assigned to commanding officers, which may delegate specific responsibilities in their contingency plans. When required, delegation of authority by

16 Nov 00

the NOSC or FIC may be verbal; however, written confirmation of the delegation shall be made as soon as practicable. The NOSC or FIC is represented on-scene by personnel whose qualifications are commensurate with the pollution incident situation, and are authorized to perform necessary emergency management functions. CNRSW retains responsibility and authority as the predesignated FOSC in accordance with the NCP for all HS releases and cannot delegate that specific responsibility and authority to subordinate commands.

2.3.3 ON-SCENE COMMAND

It is Navy policy to retain control of responses of OHS pollution incidents. Retaining Navy control may be best accomplished through the most efficient use of resources, including non-Navy assets, with Navy personnel assigned to key spill management positions. With effective prior preparation and cooperation, an effective Navy-controlled response can be conducted through current multi-agency response structures.

For example, under OPA 90, the FOSC for oil spills in the coastal zone is a Coast Guard responsibility, and is retained by the Coast Guard. Under law, any response must be conducted in a Unified Command structure, with the Navy, in the case of a Navy discharge, acting as the responsible party (RP). By effectively working with Coast Guard and State representatives prior to an actual incident, and ensuring adequate response assets are available, the Navy, as RP, will be able to manage and control the response. Under no circumstances will the Navy have complete authority over an oil discharge in the coastal zone. Thus retaining Navy control is incumbent on effectively working within the regulatory framework prior to an incident.

The FIC is responsible for directing all initial response efforts in assigned areas; the NOSC is responsible where no FIC is assigned. The first Navy official on-scene shall assume duties as incident commander until relieved by the designated FIC or NOSC.

Upon notification of a pollution incident, the NOSC or FIC shall assess the severity of the situation and determine the threat to public health, property, and the environment. The NOSC or FIC determines the level of plan implementation required for the response. In all cases, the FIC shall notify the NOSC of the incident, provide pertinent details, and request assistance if required.

For an HS release from/on Naval facilities or vessels, the NOSC shall assume the role of FOSC with responsibilities equivalent to those specified for the EPA/USCG FOSC in the Field Operations Guide (FOG). When acting as the FOSC, the NOSC shall work directly with the outside agencies required to ensure the maximum effectiveness of the federal response mechanism. The NOSC will not relinquish the responsibility of FOSC to other RRT member agencies. In the capacity as FOSC for Navy HS releases, the NOSC will seek the advice of the designated USCG or EPA FOSC (for non-DoD HS releases), as well as other outside specialists.

2.3.4 NOSC RESPONSIBILITIES

The following duties and responsibilities are assigned in accordance with the

requirements of references (a) through (c):

CNRSW as the NOSC shall:

- (1) **Designate** Facility Incident Commanders (FIC) to act as pre-designated local incident commanders within pre-assigned geographic areas.
- (2) **Ensure** Navy facilities can control, contain and clean up OHS spills, and evaluate impacts to natural resources. Ensure that an appropriate plan or plans cover all facilities. The shore NOSC may direct all major response efforts for Navy OHS spills within assigned shore boundaries to include coastal areas out to the 12 NM zone.
- (3) **Develop**, implement, and manage a comprehensive NOSC plan, consistent with the NCP and Area Contingency Plans (ACPs); Coordinate shore NOSC plans with fleet planning and operations, other DOD component OSC plans, including Marine Corps plans.
- (4) **Conduct** an annual review of the NOSC plan; update as required. Coordinate with annual ACP review and update.
- (5) **Coordinate** the development of compliant OPA 90 Facility Response Plans (FRPs) for activities in the AOR.
- (6) **Develop and coordinate** an annual regional OHS training program based on the calendar year. **Conduct** required training, drills, and exercises as appropriate.
- (7) **Direct**, as the Federal On-Scene Coordinator (FOSC), response efforts for Navy HS releases from Navy vessels or facilities in the CNRSW AOR that are beyond local capability.
- (8) **Coordinate** response operations with adjacent NOSCs, including fleet NOSCs, for Navy OHS spills that may have an impact on more than one NOSC region. Direct and coordinate response operations closely with ongoing fleet salvage operations.
- (9) **Ensure** sufficient response resources are available, through Basic Ordering Agreements (BOA), Memoranda of Agreement (MOA), and activation of Supervisor of Salvage (SUPSALV) assets.
- (10) **Ensure** that the development and implementation of this plan is consistent with the National Contingency Plan (NCP), Area Contingency Plans, and other federal, state, and local requirements as appropriate.
- (11) **Ensure** timely notifications are made to federal, state, and local agencies as required.
- (12) **Provide** updated OHS spill reporting guidance for all Navy activities in the AOR.
- (13) **Coordinate** all reports and documentation of Navy spill response operations in the AOR.
- (14) **Provide** appropriate level of public affairs support with potential for adverse publicity.
- (15) **Review** fleet directives, including Senior Officer Present Afloat (SOPA) instructions, LOGREQ procedures, OPORDs, and Fleet Guides to ensure OHS risk management, spill notification, and response procedures are consistent with applicable requirements.
- (16) **Establish** and manage a Regional Oil Spill Risk Management Working Group.

16 Nov 00

- (17) **Develop**, train, equip, and maintain an effective regional OHS spill management team. Ensure organization is kept current through appropriate directives.

2.3.5 FIC RESPONSIBILITIES

Facility Commanders, designated as Facility Incident Commanders (FICs) shall:

- (1) **Ensure** all OHS pollution incidents are properly reported in accordance with Chapter 1 of this instruction. **Make** all reports if the discovering activity is unable to; or the FIC is the discovering/responsible activity. **Submit** situation reports to the NOSC, including the final report.
- (2) **Develop** and implement OHS facility contingency response plans as required.
- (3) **Establish**, equip, and train OHS emergency response teams to conduct joint pollution response operations with the regional fire department and other local emergency response organizations. **Establish** facility spill management team (SMT) capable of managing average most probable OHS incident response events.
- (4) **Develop** facility training and exercise plan based on the calendar year. **Submit** training plan to NOSC annually by 1 October.
- (5) **Coordinate and conduct** required training, drills, and exercises as discussed in Chapter 7 of this instruction including required occupational safety and health (OSH) and OPA-90 drills and exercises. Incorporate drill and exercise requirements into routine business or other emergency drills wherever practicable.
- (6) **Maintain** the readiness of the Navy spill response capability assigned to the facility, including review and submission of Annual Allowance and Requirements Review (A2R2), if applicable, to NOSC by 1 December.
- (7) **Oversee** all Navy and contractor on-scene response operations for Navy OHS pollution incidents within the assigned area. As directed by reference (a), the FIC will act as the ERC/QI for spills originating from within their assigned area and direct all Navy response actions until relieved, if necessary, by the NOSC. Support the NOSC for Navy response in areas outside the facility's boundaries.
- (8) **Notify** the NOSC of additional assistance that may be required beyond the local response capability as soon as the shortfall is identified.
- (9) **Ensure** that initial telephone and message notifications are made to the NOSC. Submit situation reports to all concerned as appropriate.
- (10) **Assist** the NOSC in responding to major Navy and non-Navy pollution incidents, upon request, by providing available personnel and equipment.
- (11) **Assist** in the planning of, and participate in, annual NOSC meetings and exercises, as requested.
- (12) **Review** SOPA instructions, where applicable, and ensure that the guidance and procedures relative to OHS spill notifications and response in the SOPA instructions are consistent with the FIC FRP.
- (13) **If assigned** as a Local Area Coordinator (LAC), provide coordination support for Navy OHS pollution incidents within the assigned LAC area, as required. This includes on-site representation for actual or suspected pollution incidents, interface with outside agencies, and notification to the NOSC.

- (14) **Submit** After-Action Reports in accordance with format contained in Appendix G or H for every OHS pollution incident the FIC responds to or reports.

2.3.6 NAVY SHIP, UNIT, AND SHORE RESPONSIBILITIES

All Navy ships, units, and shore activities in the CNRSW AOR shall:

- (1) **Take** all possible prevention measures to preclude accidental OHS pollution incidents. Including incorporation of fleet, type commander, and other regional pollution prevention risk management guidance into daily operations.
- (2) **Report** promptly all OHS spills or discoveries of non-Navy pollution incidents in accordance with Chapter 1 of this instruction and other fleet directives, as appropriate. **Incorporate** responsibilities into routine and day-to-day functions as feasible.
- (3) In case of an activity-generated OHS pollution incident, **initiate** containment and cleanup actions immediately. **Direct** response operations until response actions are complete, or relieved by the designated FIC or NOSC.
- (4) **Develop and manage** an annual OHS preparedness and response-training plan. **Submit** to NOSC annually prior to 1 October. **Conduct** required training, drills, and exercises as required in reference (a) and this instruction.
- (5) **Collect**, document, and report all available incident information, especially with respect to OHS type, quantity, and environmental conditions, and submit to the ISIC, TYCOM, or NOSC as appropriate.
- (6) **Provide** assistance within available resources to assist the FIC or NOSC.
- (7) **Develop** activity OHS contingency response plans in accordance with requirements contained in reference (a), this instruction, and other applicable claimant guidance.
- (8) **If assigned** as a Local Area Coordinator (LAC) in accordance with reference (b), provide coordination support for Navy OHS pollution incidents within the assigned LAC area, as required. This includes on-site representation for actual or suspected pollution incidents, interface with outside agencies, and notification to the NOSC.

Shore Commanding Officers (Not Designated FICs) shall:

- (1) **Develop**, annually review and update activity OHS spill contingency plans in a format prescribed by COMNAVFAENGCOM.
- (2) **Coordinate** OHS spill contingency plans with NOSC OHS Regional Response Plans.
- (3) **Properly train** personnel who respond to or supervise the response to an OHS spill.
- (4) **Accomplish** all quarterly, annual and triennial drill requirements.
- (5) **Incorporate** drill and exercise requirements into routine business and emergency drills wherever practicable.
- (6) **Tailor** training to include State and local emergency response laws, ordinances and regulations.

16 Nov 00

- (7) **Maintain** training records and documentation as required by Federal, State and local regulations.
- (8) **Mitigate** and clean up OHS spills from vessels and activities and reimburse, as appropriate, other Commands that provide assistance.

2.3.7 CNRSW STAFF RESPONSIBILITIES

2.3.7.1 NOSC PROGRAM MANAGER

- (1) **Develop** and maintain appropriate contingency plans, including the regional NOSC plan, and coordinate facility response plans (FRP) updates and timely submission to appropriate agencies. Ensure coordination of the NOSC Plan with applicable regulatory agencies, FICs, and adjacent NOSC.
- (2) **Establish** pre-planned response procedures for OHS pollution incidents outside of San Diego County, utilizing appropriate Local Area Coordinators, emergency agencies, and response resource providers. Procedures must ensure Navy QI coverage until completion of an incident, or NOSC on-scene assumption of responsibility.
- (3) **Conduct** actual incident response management as directed in references (a) through (c).
- (4) **Serve** as primary liaison with appropriate FOSC during pollution incident response operations. This may be managed by the affected OSIC for non-major incidents.
- (5) **Act** as Federal On-Scene Coordinator (FOSC) for Navy HS incidents. Designated on-scene response personnel may complete FOSC responsibilities. However, the FOSC still retains responsibility for ensuring the responsibilities are completed.
- (6) **Coordinate** the prompt mobilization of personnel, materials, and equipment in the area and assist activities in their local response activities as required.
- (7) **Ensure** that all required Federal, state and local notifications are made.
- (8) **Establish** and manage a NOSC Working Group.
- (9) **Designate** a Government Liaison Officer (GLO) to provide necessary coordination while the Emergency Operation Center (EOC) is activated.
- (10) **Maintain** the primary regional OHS incident database. Reconcile data monthly, at a minimum, with the area FOSC and Naval Facilities Engineering Service Center (NFESC).

2.3.7.2 N00PA - PUBLIC AFFAIRS OFFICER

- (1) **Provide** public affairs support as required for OHS emergency incident management, including supporting field level repines and full-scale EOC operations. This includes support for FIC managed operations if requested/required.
- (2) **Provide** training and guidance as required to CNRSW staff personnel, including duty officers on OHS incident media inquiries.

2.3.7.3 *N2 - ACOS, PUBLIC SAFETY*

- (1) **Consolidate** existing metro San Diego area IRT(s) into a single regional IRT with detachments (DET(s)) at key facility locations.
- (2) **Designate** and train OSIC(s) to act as IC(s) for all HS releases by the Navy.
- (3) **Promulgate** regionalized organization and response procedures in a regional HS incident response guide (CNRSWINST 5090.1 series).
- (4) **Coordinate** all equipment and training support, including development and management of a comprehensive training program for IC and IRT personnel, including any required drills, exercises, and OSHA HAZWOPER training.
- (5) **Provide** a timely, effective response to all HS releases on, or from Navy Facilities in the Metro San Diego area. Act as Federal On-Scene Coordinator (FOSC) until completion of the incident, or relieved by the NOSC.
- (6) **Ensure** all HS releases are properly reported in accordance with Chapter 1 of this instruction.
- (7) **Provide** on-scene liaison with regulatory agencies; and represent the Navy for response coordination in regional HS related multi-agency groups.
- (8) **Conduct** annual review of applicable plans, guides, and response procedures. Provide input to plan manager as required.
- (9) **Identify** additional outside response support through mutual aid agreements and BOAs, and activate when required. Coordinate funding through Hazardous Waste Program Technical Lead (N45414).
- (10) **Establish** and train a field level response team (FLRT) to provide NOSC support for Navy HS releases outside the Metro San Diego area.
- (11) **Incorporate** appropriate guidance in the CNRSWINST 3440 series.
- (12) **Ensure** all personnel are familiar with the contents of CNRSW 5090.1 (series), and the requirements are incorporated into appropriate procedures.

2.3.7.4 *N3P - ACOS, PORT OPERATIONS*

- (1) **Provide** a timely, effective response to all Navy oil spills on the waters of San Diego Bay, including field level spill management.
- (2) **Provide** on-scene liaison with regulatory agencies; and represent the Navy for response coordination in regional multi-agency groups, including the Area Committee, as requested by the NOSC.
- (3) **Manage and maintain** a regional oil spill FRT, including a central 24-hour notification number, with detachments (DETs) at key facilities. FISC, San Diego fuel facility will retain existing personnel on-site, but will function as a spill response detachment and respond when tasked by ACOS, Port Operations, or designated representative.
- (4) **Promulgate** regional organization and response procedures through the regional oil spill response instruction (CNRSWINST 5090.1 Series).

16 Nov 00

- (5) **Provide** a facility and appropriate support within the Port Operations center at NAVBASE San Diego to serve as the regional Navy Oil Spill Operations Center (NOSOC).
- (6) **Coordinate** all regional waterfront facility NFESC centrally funded equipment and training support, including submission of Annual Allowance and Requirements Review (A2R2) documentation. Submit A2R2 report annually to NOSC for approval prior to 01 November.
- (7) **Develop** and manage a comprehensive training program for FRT personnel, including required OPA 90 drills and exercises, and OSHA HAZWOPER training. Ensure all drills and exercises are properly documented and copies provided to NOSC annually by 01 December.
- (8) **Conduct** an annual review of applicable plans, guides, and response procedures. Update as required.
- (9) **Provide** on-water oil spill response support for Navy shore activities as required.
- (10) **Participate** as member of the NOSC regional FLRT as requested by the NOSC.
- (11) **Act** as Co-Chair of the Regional Oil Spill Working Group (ROSWG).

2.3.7.5 N451 - REGIONAL ENVIRONMENTAL PROGRAM DIRECTOR

- (1) **Provide** Plans/Intel Section Chief for regional OHS SMT in accordance with requirements of reference (a), and this instruction. Coordinate personnel, resources and training as required to staff and operate the Plans/Intel Section.
- (2) **Coordinate** all documentation for major incidents (requiring activation of NOSC SMT) involving Navy operations.
- (3) **Provide** shoreline clean up plan as required. Plan must identify environmental sensitivities and potential impacts, contain appropriate clean-up methods, identify staffing and contractor resources, provide guidance on “how clean is clean”, and detail compliance requirements.
- (4) **Develop** and manage a NRDA plan for the CNRSW AOR. The plan must contain a “user-friendly” step-by-step implementation guide and baseline assessment.
- (5) **Develop** regional OHS risk assessment, including worst case discharge scenarios, average most probable discharge scenarios, and preventive risk management controls.

2.3.7.6 N5 - STAFF JUDGE ADVOCATE

- (1) **Provide** appropriate Legal counsel, including guidance on environmental compliance, claims, and Natural Resources Damage Assessment (NRDA) management.
- (2) **Provide** legal staff support and conduct claim and NRDA management as directed in reference (a).
- (3) **Provide** guidance on regulatory compliance requirements in conjunction with N45.

2.3.7.7 N8 - COMPTROLLER

- (1) **Provide** contract support as necessary to cover all incident management responsibilities, including additional spill response and clean-up coverage.
- (2) **Develop** and manage cost accounting/recovery program to be implemented in support of response activities to major pollution incidences.
- (3) In the event of a major incident requiring the activation of the regional NOSC SMT, **serve** in Finance Section in accordance with the requirements of this instruction and other applicable directives. **Coordinate** personnel, resources and training as required to staff and operate as required in the finance section.

2.4 FEDERAL AND REGIONAL COORDINATION

The Oil Pollution Act of 1990 (OPA 90) mandates the National Response System, which provides for a designated FOSC to monitor, assist, or direct, if necessary, response to OHS spills, without regard to the spill's source. FOSCs for incidents within the CNRSW AOR have been designated as follows:

- ◆ The Commanding Officer, USCG Marine Safety Office (MSO), San Diego, LA/LB, Santa Barbara, Monterey and San Francisco are the designated FOSC to direct federal response under the NCP for coastal oil pollution incidents in their respective AORs.
- ◆ The Administrator, EPA Region IX, provides the designated FOSC to direct federal response under the NCP for inland pollution incidents in the CNRSW AOR, except for DoD HS releases. (See Appendix G for the EPA/USCG Boundary Agreements for the CNRSW AOR.)
- ◆ The Department of Defense (DoD) is designated the FOSC for HS releases from/on DoD facilities and from DoD vessels, including vessels chartered and operated under the jurisdiction, custody or control of DoD. CNRSW is the DoD designated FOSC for all U.S. Navy HS releases in this AOR, and will perform the duties as such.

The NCP also establishes 13 Regional Response Teams (RRTs). DoD is a member of the RRTs. The Region IX RRT monitors reports of pollution incidents, assists the FOSC, coordinates the application for the use of alternative removal methods (dispersants and *in situ* burning) and maintains liaison with the National Response Team (NRT). The DoD representative of the Region IX RRT is the CNRSW NOSC Program Manager.

The California Office of Emergency Services (OES) is the state agency that coordinates state emergency response efforts for all OHS spills occurring in the State of California. The Nevada Department of Conservation and Natural Resources Division of Emergency Management is the state agency that coordinates state emergency response efforts for all OHS spills occurring in the State of Nevada. The Arizona Division of Emergency Management,

16 Nov 00

Response, Recovery, and Mitigation is the state agency that coordinates state emergency response efforts for all OHS spills occurring in the State of Arizona. (See Appendix B for additional coordinating agencies in California, Arizona, and Nevada supplemental detailed response sector information).

OPA 90 established Area Committees for each USCG Captain of the Port Zone (COTP) and EPA Region. These committees are made up of federal, state, and local agencies and are responsible for development of an Area Contingency Plan (ACP) to remove a worst case discharge or prevent a threat of such a discharge. ACPs provide the primary guidance for response requirements and prioritization of resources at risk. All Navy contingency plans must be coordinated and consistent with them.

The "First Federal Official", as defined by the NCP, is the first representative of a cognizant federal agency who arrives on-scene of an OHS pollution incident. This official is responsible for coordination of activities under the NCP and may initiate, in consultation with the FOSC, any necessary actions until the arrival on-scene of the FOSC. Within the CNRSW AOR, Navy response personnel may be in this position and must be aware of this responsibility.

2.5 SALVAGE RELATED INCIDENTS

Concurrent salvage and pollution operations may be required from casualties such as a ship grounding, collision, fire, or harbor clearance. The Fleet or Type Commander will coordinate Salvage operations. Both salvage and pollution response operations shall be conducted with proper consideration for the safety of the ship and the environment. Coordination of all salvage and pollution response efforts is particularly critical when casualties occur outside of Navy ports. The NOSC/FIC shall initiate liaison with the fleet salvage forces (e.g., the Commander in Chief, U.S. Pacific Fleet (CINCPACFLT) or the Commander, Naval Surface Force, U.S. Naval Surface Fleet (COMNAVSURFPAC)) as soon as possible. Financial accounting documents shall separate pollution expenses from salvage expenditures. See Appendix A for salvage related incident point of contact information.

2.5.1 JETTISONING OF OIL

International treaty and U.S. law authorizes the discharge of oil, for purposes of securing the safety of a ship or safety of life. If possible, every effort must be made to discharge beyond 50 NM from land. In U.S. waters, unless deemed an immediate safety hazard, the jettisoning oil shall only be considered as part of a salvage plan when developed by technically qualified salvage personnel and after consultation with the USCG FOSC.

2.6 NON-NAVY INCIDENTS

Navy response to non-Navy pollution incidents shall conform to the requirements of the NCP and shall be in accordance with the procedures established in this section and in the interagency agreement between the Navy and the USCG (See Appendix G). Navy forces participating in non-Navy pollution incidents shall, unless otherwise directed, operate under their

normal command relationships. Requests for Navy participation in non-Navy pollution incidents will originate from the USCG, as the FOSC for coastal OHS spills. These requests shall be directed to the NOSC (CNRSW) who coordinates tasking of appropriate units. The commander of any participating unit shall report to the FOSC or to the OSC designated representative and shall assist in the planning and execution of the assigned tasks. The NOSC and designated FICs shall be kept informed about the utilization of Navy forces or assets.

Pre-authorized informal communication links may be used to reduce the time between requests for Navy assistance and Navy response. Navy response to non-Navy pollution incidents is subordinate to Navy operational requirements. Navy resources listed in any support agreement may not be available at any one time.

Pre-arranged agreements exist between the USCG and Navy SUPSALV. The FOSC is permitted direct access to SUPSALV equipment through the inter-agency agreement. (Appendix F contains a copy of the Interagency Agreement between the USCG and the Navy.)

Note: In the event the FOSC requires SUPSALV support for a Non-Navy incident, the FOSC shall coordinate directly with SUPSALV.

2.7 NAVY NATURAL RESOURCES TRUSTEE RESPONSIBILITIES

A trustee is a person who acts on behalf of the public to protect natural resources. Potential trustees that could be impacted by an oil discharge or hazardous substance release are incorporated into the National Response System and identified in the NCP. Trustee participation in preparedness and response is intended to avoid or minimize injury to natural resources. Various federal, state, Indian tribe, and foreign officials have been designated as trustees and have jurisdiction over natural resources. In some instances, multiple trustees exist for the same resource. Natural resources are broadly defined by *43 Code of Federal Regulations (CFR) 11.14*, the Oil Pollution Act of 1990 (OPA), and the NCP as "land, fish, wildlife, biota, air, water, ground water, drinking water supplies and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by... *a trustee*."

2.7.1 AUTHORITY

Executive Order (EO) 12580, as amended by EO 12777, delegates natural resource trustee responsibilities to the Secretaries of the Interior, Defense, Energy, and Agriculture, as land managing agencies, for natural resources located on, over, or under land administered by each agency. The Secretaries of Commerce and Interior have jurisdiction for general categories of natural resources, including their supporting ecosystems. Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Secretary of Defense has delegated trustee responsibilities to the secretaries of the component services. Each trustee has the responsibility to ensure protection of their resources. Under OPA 90, trustees are

16 Nov 00

responsible for the restoration, rehabilitation, replacement, or acquisition of resources equivalent to those affected if resources are impacted by an oil spill or hazardous substance release.

2.7.2 SPILL RESPONSE

The NCP provides the legal framework for trustee responsibilities during a spill or release. There are two distinct and separate roles that trustees must fulfill:

- (1) A response role to provide technical assistance and expertise to the OSC on resources at risk and environmental issues, including appropriate countermeasures for minimizing impacts; and
- (2) A natural resource damage assessment (NRDA) role to ensure polluter-funded restoration of impacted natural resources.

These two roles are separate and distinct. In their response roles, personnel, who also may serve as trustees, are actively involved in the response process, helping prioritize protection strategies for sensitive areas and providing expertise to minimize environmental impacts. The NRDA role assesses injury or damage that has already occurred to resources. It is a separate, parallel activity to the actual response.

The response role for trustee agencies is largely fulfilled in the Planning functional area of the Unified Command System (UCS). The trustee representatives advise the OSC on appropriate response techniques, identify or highlight sensitive areas to protect, and/or prioritize, and provide technical expertise on other environmental and wildlife issues. Specific regional NRDA procedures are contained in Appendix N.

2.7.3 NOSC INVOLVEMENT

The NOSC and the resource trustees interact in the following situations:

- (1) **Notification** – The NOSC will notify designated trustees of any spill or release so that the trustees can carry out their response and NRDA roles. See Appendix A for trustee contact information.
- (2) **Coordination** - The NOSC will consult and coordinate with the resource trustees to minimize environmental impacts. The NOSC will monitor any on-going NRDA activity, and will coordinate resources with the trustees carrying out their duties, but will not participate as a trustee.

For more information on Wildlife Management issues, refer to Appendix J. For more specific information on NRDA, refer to Appendix C.

2.8 CLAIMS FOR DAMAGES OR COMPENSATION

The Clean Water Act does not define the Navy's liability for damages from pollution incidents as it defines the liability of non-government activities. All claims resulting from a Navy pollution incident are handled in accordance with procedures promulgated by the Navy Judge Advocate General (JAG). Appendix K contains information on the Navy Admiralty's claims procedures. CNRSW N53 will coordinate all claim processing including coordination with Navy JAG. Emergency pollution clean up response costs funded by the spilling activity shall not be confused with requests for payment of damage claims or for restoration of damaged property.

2.9 INVESTIGATIONS

The NOSC and FIC responsibility is to manage the spill response and to ensure a prompt and effective clean up. Attempts to assign culpability during the emergency phases of an incident may delay clean up efforts and will be pursued as a follow-on action. The appropriate level of investigation will be determined by the activity's chain-of-command with claimant approval. As a minimum, a 72-hour ISIC inquiry will be conducted for each reported pollution incident with a recommendation for disposition. The ISIC shall forward recommendations via naval message as action to the activity's major claimant and information to COMNAVREG SW SAN DIEGO CA //N45//.

2.10 SECURITY

Spill response information is not normally classified; however, response personnel must be aware of potential security and public safety issues. Security is an active part of NOSC spill response management provided through the activity security personnel. Physical security shall be provided for all Naval, contractor, local government, or other response equipment obtained by the Navy for spill response. Equipment staging areas must be selected to allow for the physical security of personnel and equipment.

2.11 VOLUNTEER SUPPORT

As a pollution incident gains publicity, local civilians and other interested parties may volunteer their services to perform such tasks as shoreline cleanup, wildlife rehabilitation, and other functions. The use of volunteer support by the Navy is not authorized. Volunteers will be directed to the FOSC for processing.

COMNAVREGSWINST 5090.1C
16 Nov 00

This page intentionally left blank.

Chapter 3 SPILL PREVENTION AND RISK MANAGEMENT

3.1 OPERATIONAL RISK MANAGEMENT (ORM)

ORM is the process of dealing with risk associated with military operations, through a clear, logical process, which includes hazard assessment, decision making, and implementation of risk controls. As directed by CNO WASHINGTON DC 102317Z AUG 99 (NAVOP 006/98). ORM needs to become part of our daily routines. It is essential that all oil management operations are addressed through the ORM process, and that the risk versus pay-off review and decision-making review is conducted. In planning oil transfer operations, the risk presented must be weighed against operational need and benefit.

For additional information on the Navy ORM Program, go to the Internet site "www.norfolk.navy.mil/safecen."

3.1.1 REGIONAL OIL SPILL WORKING GROUP (ROSWG)

To support long term ORM goals for minimizing oil pollution incidents, a CNRSW ROSWG is established, and will meet bi-monthly, at a minimum. With a goal of “*zero preventable oil spills*” the ROSWG will:

- a. Collect and analyze all oil spill data,
- b. Review root cause data for pollution prevention opportunities,
- c. Develop risk management recommendations and controls,
- d. Provide feedback and recommendations to major claimants, COMTHIRDFLT, type commanders, and other resource sponsors,
- e. Update the Commander on a regular basis,
- f. Ensure necessary documentation is developed and promulgated to ensure process improvements are formalized and implemented.

ROSWG Membership. Membership will consist of representatives from the following commands, as a minimum:

Co- Chairs: CNRSW N3P - ACOS Port Operations
 CNRSW N45 – ACOS Environmental Programs

Primary Members: COMTHIRDFLT
 COMNAVSURFPAC
 COMNAVAIRPAC
 COMSUBPAC REP WEST COAST

 COMPHIBGRU THREE
 COMMSCPAC
 COMNAVREG SW N3P1
 COMNAVREG SW NOSC Program Manager

16 Nov 00

Coast Guard Marine Safety Office, San Diego
NAVSEA Code 03L
FISC San Diego Code 700
PWC San Diego Code 900

3.2 SHIP AND SHIP/SHORE EVOLUTIONS

3.2.1 SPILL PREVENTION

In accordance with COMNAVSURFPAC 062157Z AUG 97, all surface afloat units in the Eastern Pacific Ocean ships shall implement the following spill preventive measures:

- a. Operational commanders and ships will make every effort to top off fuel at sea prior to entering port.
- b. Service tanks will be topped off prior to entering port. Ships will follow MLOC/EOSS procedures regarding topping off of the service tanks when inport as necessary.
- c. Ships in the Third Fleet AOR are not required to maintain a certain level of fuel on board after arrival inport. If refueling is necessary, ships may defer refueling inport if underway replenishment assets are available after leaving port.
- d. Ships shall implement fuel management planning to bring refueling, oily waste transfers, and internal fuel transfers to an absolute minimum inport.
- e. Operational commanders and ships shall incorporate risk reduction in fuel management, including underway replenishment planning and minimizing inport fuel transfers to support scheduled operations.
- f. All ships shall strictly comply with required refueling checklists that verify prevention measures are in effect prior to fueling or transfer evolutions.
- g. If inport refueling or transfer is required, the evolution shall be conducted during daylight and normal working hours (defined as 0800-1600, Monday-Friday) with a fully qualified watch team aboard to include key engineering supervisory personnel. Ships are encouraged to use the La Playa Pier FISC Fuel Facility to conduct major inport fueling operations, subject to any other operational requirements and La Playa Pier loading.
- h. Inport fueling and transfer evolutions will be authorized only by the commanding officer. The engineer officer or a qualified engineering duty officer prior to all transfers shall verify all system valve alignments.

3.2.1.1 OILY WASTE (OW) MANAGEMENT

Proper handling of Oily Waste and Waste Oil generated by Navy vessels is essential to best support the Fleet while complying with environmental laws and regulations. From the environmental compliance perspective, Oily Waste is the same as oil or fuel. Hence, an oily waste spill is as big a concern as a fuel spill and transferring or off-loading oily waste must be accomplished with the same attention to detail used when transferring or off-loading fuel.

PWC San Diego is the designated regional manager for shore oily waste pier risers and treatment facilities. Port Operations is the designated manager for SWOB off-load support.

The following are general compliance requirements for vessels discharging to oily waste risers:

a. SHIP CERTIFICATION. Each vessel must receive initial training on proper transfer procedures prior to using the system. Training will be conducted by PWC and must be attended by ship's personnel who are responsible for oily waste management and who are authorized to sign off ship's training documentation. Training topics will include transfer procedures, emergency shutdown/response requirements, and required documentation. Following initial training/certification, vessels will train and self-qualify ship's force personnel in accordance with the training standards package presented by PWC. Call (619)556-9498 DSN 526-9498 to arrange training.

b. COMMUNICATIONS. Continuous two-way voice communication will be maintained between the FPIC (PWC Oily Waste Scheduler) and VPIC throughout the transfer operations using dedicated radios. Ships shall pick-up radios from PWC prior to the planned transfer period at the BOWTS Operations Shack (SUBASE), or the Industrial Waste Treatment Plant, Building 788 (NASNI). PWC will provide procurement information for vessels desiring to purchase their own radios.

The following procedures must be followed for pumping to oily waste pier risers:

a. Vessels shall request oily waste off-load connections via LOGREQ. For submarines at subbase, SUBRON ELEVEN will arrange support.

b. Upon arrival at the pier, PWC Ship/Shore Code 623 will make all pier connections (connect and disconnect) between vessels and pier oily waste risers. Vessels having special requests shall request connect/disconnect services directly to the PWC Duty Desk at (619) 556-7349.

c. The VPIC shall establish voice communications with the FPIC by radio at least 30 minutes prior to commencing the pumping evolution. The VPIC will conduct a pre-transfer conference with the FPIC and provide the following information:

- (1) Vessel Name
- (2) VPIC name

16 Nov 00

- (3) Desired commencement time
- (4) Product type (percentage oil/fuel)
- (5) Estimate of volume
- (6) Estimate of length of time required to pump
- (7) Sequence of operations (if appropriate)
- (8) Transfer rate and pressure
- (9) Emergency procedures, including shutdown

The FPIC will notify the vessels of any other restrictions when they check-in.

- d. Station a pier riser watch; ensure effective communications between the vessel, facility, and appropriate watchstations; and complete the appropriate checklist.
- e. Begin pumping at the designated time, and notify the FPIC that pumping has commenced.
- f. Discharge until the end of the authorized time period, until completion, or until secured for an emergency, whichever comes first. Notify the FPIC when transfer is completed.
- g. Immediately shut down pumping operations in the event of any system failure. Secure all transfer operations within 30 seconds of notification-- initiated by the either the vessel or the receiving activity. Conduct spill notification and response in accordance with this instruction.

3.2.1.2 *CONTAINMENT BOOMING FOR VESSELS*

Use of oil spill containment boom can be an effective tool in mitigating oil discharges from vessels, under appropriate conditions, and when managed properly. Effective deployment requires adequate space for maintaining an appropriate stand-off distance, is manpower intensive, potentially impedes attendant waterfront operations, and uses significant resources.

Due to geographic sensitivity and low vessel populations, boom deployments will be routinely done on ships located at Naval Base Coronado and Naval Base Point Loma (including FISC). For Naval Base San Diego and other locations, booming will be done on a case-by-case basis, based on risk and accessibility.

NOTE: Oil spill containment boom is not secondary containment, and does not keep oil out of the water column. It aids in mitigating impacts after a spill has occurred.

3.2.1.3 *INPORT REFUELING REQUEST PROCESS*

The following fueling request procedures address inport fueling minimization and incorporate the guidelines set forth in the SOPASDIEGOINST 5100.1 series:

a. **REQUESTS:** Vessels shall request fueling support via LOGREQ prior to arrival. They shall utilize Section FOXTROT of the LOGREQ and provide the following information:

1. Product and quantity
2. Two desired fueling dates, primary and alternate (minimum 5 working days in advance when possible)
3. Percentage of fuel onboard prior to fueling; percentage onboard after fueling
4. A statement that other options have been considered

Note: If fueling requirement is generated following a vessel's arrival in port San Diego, vessels will utilize the standard procedures above to request support and will add the following:

"FUELING REQ" in the subject line following standard LOGREQ subject language, and;

5. Vessel location

b. **ADDRESSEES:** The LOGREQ must be sent to CNRSW//N3P/N3P1// with SOPA, Type Commander, and ISIC as information addressees. MSC, NOAA, Coast Guard, and other public vessels will use their appropriate agencies as information addressees. Naval Base San Diego will act as ISIC for these vessels and validate the requirement. Foreign Navy vessels will use the host ship and CNRSW//N3P// as their information addressees. CNRSW//N3P// will act as the ISIC for foreign vessels and validate the requirement.

c. **ISIC ENDORSEMENT:** The designated ISIC shall review the fueling requirements for operational necessity, and forward an endorsing message to CNRSW//N3P/N3P1// with appropriate information addressees.

d. **PORT SERVICES RESPONSE:** Upon receipt of the ISIC endorsement message, Port Services shall respond to the requesting vessel via message with proposed date(s) and POC information. Port Services shall include appropriate information addressees on the message.

e. **EMERGENT REQUIREMENTS:** In the event of a casualty or other emergency requiring timely fueling/defueling support, the vessel may contact Port Services in San Diego directly at 556-3137 to request services during normal working hours. After working hours, contact 556-1443. If services are provided, the requesting vessel shall send an after-action message to all concerned.

f. **SAMPLE LOGREQ MESSAGES:** Below is a sample Arrival LOGREQ and a sample Fuel Request LOGREQ.

16 Nov 00

FM USS NEEDSUPPORT
TO COMNAVREG SW SAN DIEGO CA//N3P/N3P1//
INFO SOPA SAN DIEGO CA//00//
OTHERS AS APPROPRIATE
UNCLAS//N04490//
MSGID/GENADMIN/DD-911//
SUBJ/LOGREQ SAN DIEGO CA//
REF/A/DOC/NWP 10-1-10/-//
AMPN/REF A IS LOGREQ REPORT INSTRUCTION//
ALFA: ETA CORONADO BRIDGE 170100ZJAN00 (1700U).
BRAVO: (1) REQ PILOT, TWO TUGS, AND LINE HANDLERS TO MOOR TO
PORT SIDE TO, PIER SEVEN, BERTH 76 NORTH (B76NP07) NAVBASE.
DELTA: MAIL DELIVERY ARRANGED SEPCOR.
FOXTROT:
(1) 200K GALS, DFM
(2) 012500/012600
(3) 54 PCT/90 PCT
(4) USS NEEDSUPPORT REQUIRES FUEL FOR UPCOMING FLEETEX. INPORT
REPAIR AVAILABILITY PRECLUDES USING NFF FOR REFUELING. T-AO IS
NOT AVAILABLE UNTIL AFTER FLEETEX COMPLETED.

FM USS NEEDSUPPORT
TO COMNAVREG SW SAN DIEGO CA//N3P/N3P1//
INFO SOPA SAN DIEGO CA//00//
OTHERS AS APPROPRIATE
UNCLAS//N04490//
MSGID/GENADMIN/DD-911//
SUBJ/LOGREQ SAN DIEGO CA-FUELING REQ//
REF/A/DOC/NWP 10-1-10/-//
AMPN/REF A IS LOGREQ REPORT INSTRUCTION//
FOXTROT:
(1) 200K GALS, DFM
(2) 012500/012600
(3) 54 PCT/90 PCT
(4) USS NEEDSUPPORT REQUIRES FUEL FOR UPCOMING FLEETEX. INPORT
REPAIR AVAILABILITY PRECLUDES USING NFF FOR REFUELING. T-AO IS
NOT AVAILABLE UNTIL AFTER FLEETEX COMPLETED.
(5) PIER SEVEN, BERTH 76 NORTH (B76NP07), NAVBASE.

3.2.2 NON-NAVY PORT REQUIREMENTS

A Non-Navy port is a port where either the onsite U.S. Navy shore activity/representative does not have indigenous port service assets or where there is no us naval activity/representative. Due to BRAC actions, most California ports outside of San Diego fall into this category including San Francisco, Alameda, Oakland, Monterey, Los Angeles/Long Beach, Santa

Barbara, and Eureka. Due to the lack of organic Navy oil spill response assets in these areas, ships are required to utilize standard contractor coverage when visiting other CA ports. These services are provided through FISC San Diego and the HA for all non-Navy California ports at a nominal cost. This program guarantees a dedicated initial response that satisfies the Navy's immediate responsibilities in the event of a spill. For incidents beyond the scope of this basic coverage, CNRSW, as the NOSC, will ensure additional incident management requirements are met. Spill response guidance and checklist will be provided prior to each visit, and is provided in Appendix (P). For additional information: go to *www.sd.fisc.navy.mil*, select "customer" then select "Port Services".

3.2.2.1 *COORDINATION SUPPORT*

To provide long term continuity and enhanced coordination efficiency, Fisc San Diego will process all LOGREQS for California Non-Navy ports, and utilize contracted husbanding agents (HA) for local coordination. Further, the use of HA services ensures employment of qualified vendors and compliance with transportation-related and environmental regulatory requirements. Any exception to this policy must be requested by message, with ISIC/TYCOM concurrence, to:

- COMNAVREG SW San Diego CA, Code N3P1
- Info: FISC San Diego CA, Code 240.

3.2.2.2 *ENVIRONMENTAL RISK MANAGEMENT*

Due to the sensitive nature and high potential costs attendant to refueling and hazardous and oily waste offload operations, ships must make every effort to conduct environmentally sensitive, costly operations such as refueling, bilge dewatering, and hazardous waste disposal when and where standard Navy support services are available.

3.3 SHORE FACILITIES

Shore facilities shall comply with the applicable provisions of reference (a). In particular, attention must be focused on maintaining the facility's Spill Prevention, Control, and Countermeasures (SPCC) Plan in a current status. This includes implementing spill prevention initiatives and training as delineated in the SPCC Plan.

COMNAVREGSWINST 5090.1C
16 Nov 00

This page intentionally left blank.

Chapter 4

Reporting Requirements

4.1 PURPOSE

Preventing pollution must be our top priority, but in the event of an accidental discharge, timely reporting of a pollution incident is essential. Timely reports ensure an effective response, compliance with applicable regulatory requirements, and maintenance of an accurate data base to support follow-on spill prevention efforts.

4.2 AUTHORITY

As directed in references (a) and (b), Commander, Navy Region Southwest (CNRSW), as the Navy On-Scene Coordinator (NOSC), is responsible for ensuring all Navy OHS pollution incidents within the States of California, Nevada, and Arizona, and coastal waters out to 12 nautical mile are properly managed. Effective incident management includes required reporting, timely on-scene response, and appropriate clean-up, as required.

4.3 REPORTING REQUIREMENTS

All reportable quantity (RQ) OHS discharges/releases will be promptly reported by the activity causing the discharge or the first activity discovering the incident.

4.3.1 REPORTING PROCEDURES

There are three levels for reporting pollution incidents:

One: Local Navy voice reports. Initial calls to Navy host activities and response teams.

Two: Outside agency voice reports. Calls to National Response Center (NRC), state, and local regulators.

Three: Follow-up message reports.

Initial voice reports must be made immediately and shall not be delayed while determining responsibility. The NRC has defined "immediately" as within 15 minutes.

Note: Specific reporting procedures are detailed in Chapter 1 and Appendices G and H of this instruction.

4.3.2 REPORTING RESPONSIBILITY

For facilities, the Facility Incident Commander (FIC) or activity CO shall ensure that appropriate reporting is conducted. If a responsible activity cannot be identified or is unable to

16 Nov 00

conduct the necessary reporting, the supporting FIC shall make the reports. FICs shall ensure that appropriate reporting is conducted. If a responsible activity cannot be identified or is unable to conduct the necessary reporting in a timely manner, the supporting FIC shall make required reports. This applies to all RQ releases. When in doubt, report!

4.3.3 REPORTABLE QUANTITY (RQ) FOR OIL

Oil discharges include oil of any kind, including but not limited to petroleum, fuel oil, sludge, oil refuse, and refined products.

In water: All Navy-generated oil discharges to bay and coastal water of the U.S. (out to 12 nautical mile) or with the potential to reach the water shall be immediately reported, regardless of quantity. Also, any unknown discharge that causes a sheen, sludge, or emulsion shall be reported when discovered.

On land: Spills that pose a threat to safety and health or threaten to enter the water shall be reported. Also, any discharge greater than 42 gallons that is outside an established containment area, or greater than 100 gallons inside a containment area, shall be reported.

Note: Specific reporting guidance is contained in Appendix G.

4.3.4 REPORTABLE QUANTITY (RQ) FOR HS

All HS releases, regardless of quantity, will be reported to the designated incident response team (IRT) (i.e. Federal Fire) by the activity causing or first discovering the incident, unless alternative procedures are directed by an approved site-specific plan. Alternative plans must be approved by the CNRSW HW Program Office (code N4514) or appropriate local authority at facilities outside of the Metro San Diego area. Following initial response actions determination will be made by incident management personnel on further reporting requirements. Initial voice reports must be made immediately and shall not be delayed in an effort to determine responsibility for the spill.

When determined that an HS release is of a quantity that meets or exceeds the criteria listed in Appendix S, table H-2 or 40 CFR, part 302, or which poses a threat to public health or safety it is considered an RQ and must be reported to the National Response Center (NRC), appropriate state office of emergency services, and local agencies as required. Quantities are the same for spills on land or in water.

4.3.5 SEWAGE/CHT, “GRAY WATER,” AND AFFF

Although not listed as standard reportable hazardous substances, inappropriate discharges of these items may present a potential negative impact on health and safety, the environment, and the Navy’s public image. Accordingly, discharges of these substances must be

reported to the appropriate Navy complex compliance team if at a Navy facility; or to the NOSC 24-hour number listed in Appendix A.

Chapter 5

RESPONSE MANAGEMENT/CONDUCT OF OPERATIONS

5.1 NOSC INCIDENT COMMAND SYSTEM (NICS)

To provide a consistent, effective emergency response management structure, and to ensure compatibility with outside agencies and regulatory requirements, Navy activities within the CNRSW AOR will use an ICS organization based on the National Interagency Incident Management System (NIIMS) when responding to OHS pollution incidents.

The ICS organization is designed to expand or contract readily, as required, to effectively manage the spill response. For small spills, the functional sections may be sufficiently staffed by the activity from which the spill originated. For large incidents a fully staffed structure using CNRSW personnel, support personnel from other Navy activities, and other federal and state agency personnel may be required.

Figure 5-3 shows the basic CNRSW Incident Command Organization. This command structure is compatible with the CNRSW regional organization, and utilizes existing Navy organizations and chains of command to the maximum extent possible. It will ensure a timely, effective response to all appropriate OHS incidents, including a cognizant Navy official to provide on-scene coordination and represent the Navy's interests. This command organization allows for improved communications and integration with the Federal and State OSCs organizations and spill management systems. Organizational support is provided through the Navy's multi-tiered response structure. The primary point of spill management will always be the Navy On-Scene Incident Commander (NOSIC).

5.1.1 UNIFIED COMMAND

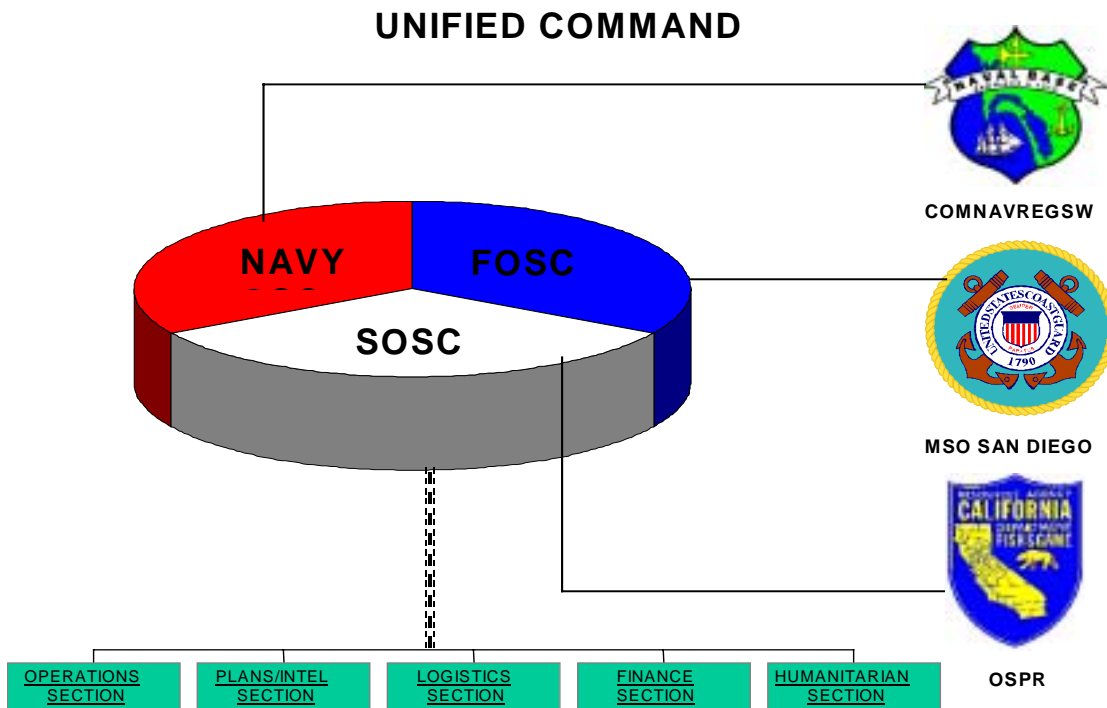
During a spill incident there are certain designated agencies that are authorized to monitor response actions and provide input to the response process. The Navy's goal is to retain control of each incident. Under the provisions of the Federal Oil Pollution Act of 1990 (OPA 90), response management command and authority has been established in a Unified Command (UC) System. This means that there are three "partners" who share command responsibilities in directing a response. These consist of the Federal On-Scene Coordinator (FOSC), the Responsible Party (RP), and state and local authorities. In California, the Department of Fish and Game, Office of Spill Prevention and Response (OSPR) normally represent State and local groups, as the lead activity. The FOSC has final authority on response and clean-up issues, and can direct actions be taken if the response is considered inadequate.

NOTE: Any time the FOSC directs a response action, it must be clearly stated that they are doing so as the FOSC, the reason(s), and that there is command level agreement at the MSO. Ensure NBSD CO/XO/CDO, Port Operations Program Manager, and the NOSC are notified

16 Nov 00

of this action immediately, and provide an assessment whether Navy response personnel concur. Any requests by State and local representatives must be made through the FOSC.

Under a Memorandum of Agreement (MOA) with the Navy, Coast Guard representatives may conduct investigations of oil spill incidents, including going onboard and taking fuel samples. Approval of conditions, including time and place, is at the discretion of the ship's Commanding Officer. If there is any conflict, the NOSC is to be notified immediately to resolve the issue.



5.2 INCIDENT MANAGEMENT

5.2.1 RESPONSE PHASES

IAW the NCP, incident response operations shall be conducted in four phases:

PHASE I -DISCOVERY AND NOTIFICATION

a. Report:

- Oil (619) 556-8006
- HS 9-911/911

Note: Include location, quantity, type of product, immediate danger to life or health, and Reporting POC information.

- b. Notify within 15 minutes: NRC: 800-424-8802
STATE OES: 800-852-7550
NOSC: 619-524-2314

PHASE II - PRELIMINARY ASSESSMENT AND INITIATION OF ACTION

- a. Establish communications
- b. Begin summary log ICS 214
- c. Conduct off-site characterization and initial work plan and provide to FRT/IRT:
 - Types of hazards and risks
 - Site ingress and egress routes
 - Initial containment and recovery strategy
 - Decontamination and HW collection sites
- d. Dispatch FRT/IRT
- e. FRT/IRT Leader assumes duties as NOSIC
- f. Establish communications with COR/RRC
- g. Make notifications/establish communications with:
 - FIC
 - NOSC
- h. FIC/NOSC (if outside assigned FIC boundaries) assume duties
- i. Secure source
- j. Contain
- k. Assess conditions:
 - Tides
 - Currents
 - Wind
 - Resources at risk
- l. Establish organization:

16 Nov 00

- Post/fill out ICS Form 201

- m. Note location, assets, and tidal conditions on Harbor Chart (oil spills)

- n. Determine:

- Objectives
- Initial strategy

- o. Develop/Brief Site Safety Plan:

- Site Description
- Entry objectives
- Site Organization
- Site control (zones, boundaries, etc)
- Hazard evaluation
- Personnel safety risk management controls
- Communications
- Decontamination procedures
- Emergency medical procedures
- Identify Site Safety Officer

PHASE III -CONTAINMENT, COUNTERMEASURES, CLEANUP, AND DISPOSAL

- a. Conduct on-scene operations

- b. Determine if additional Navy assets are required. If so, dispatch available FRT/IRT assets.

- c. Determine if Navy assets are adequate. If not, contact NOSC for assistance.

- d. On-scene close-out with all parties

PHASE IV - DOCUMENTATION AND COST RECOVERY

- a. After Action Report

- b. Claims

- c. ISIC Inquiry

- d. TYCOM Investigation

5.2.2 PRIORITIES

Response operations conducted under this plan shall be in accordance with the following priorities, in order of priority, as established by the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) (40 CFR 300):

- ◆ Protect human health and safety.
- ◆ Stabilize the situation to preclude the event from worsening.
- ◆ Protect natural resources by using all necessary containment and removal methods to minimize adverse impacts to the environment.

These priorities shall be addressed concurrently where possible, while retaining the established order as necessary.

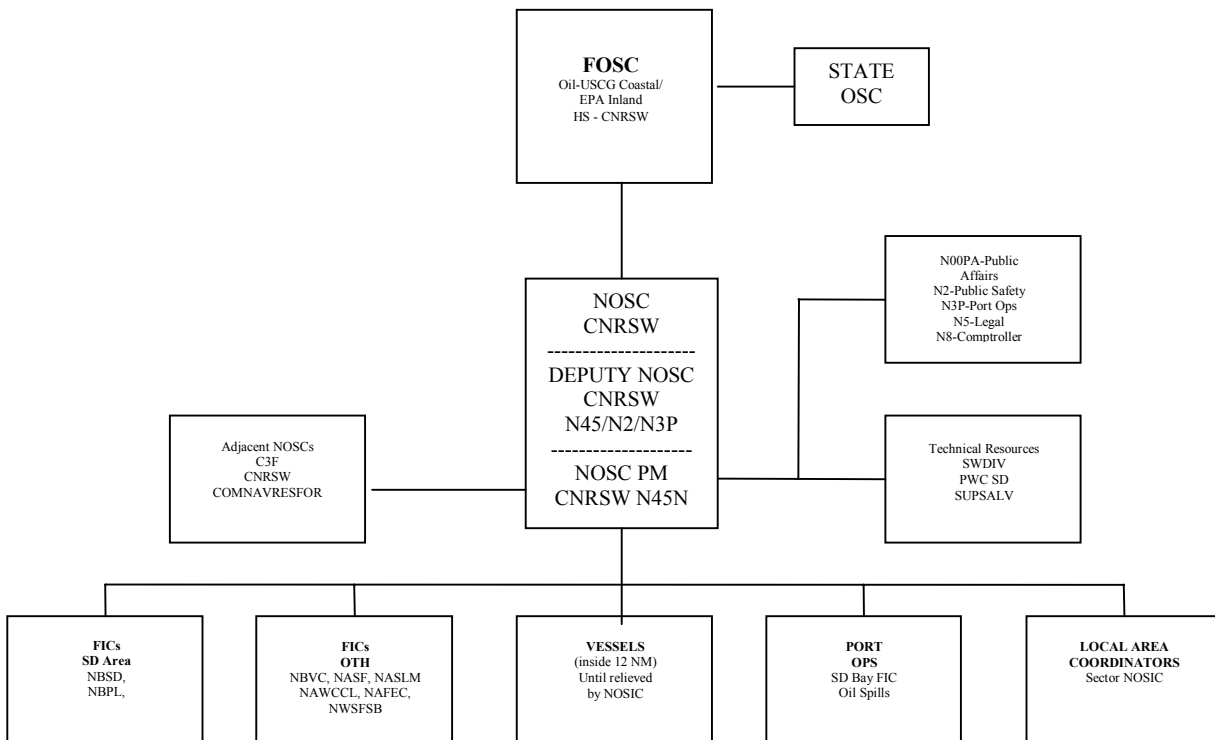


Figure 5.2: Unified Command Organization

5.2.1 RESPONDING ACTIVITY RESPONSIBILITIES

A Navy facility or ship that originates or discovers an OHS spill or release must:

- (1) Take immediate action to control and contain the release or spill.
- (2) Make appropriate notifications.
- (3) Implement the appropriate Facility or Shipboard Contingency Plan.

Initial response priorities are:

- (a) Ensure personnel health and safety.
- (b) Secure the source of the spill and making required notifications.
- (c) Contain the discharge.
- (d) Protect sensitive areas.

5.2.2 NOSC RESPONSIBILITIES

All OHS response actions will be conducted at the lowest possible local level, through the incident commanders' response facilities. For any spill with the potential to exceed local response capabilities, the NOSC will provide assistance as required. This will include activation of supporting spill management personnel, mobilization of other local and regional Navy assets, mobilization of SUPSALV resources, or activation of Basic Ordering Agreement (BOA) response contractors or other commercial response organizations. The designated NOSC representative will relieve the local incident commander if necessary, if requested by the FOSC.

5.3 NOSC RESPONSE ORGANIZATION

The CNRSW response organization, including roles, responsibilities, and billet assignments is delineated in Chapter 2. Names of key personnel and 24 hour phone numbers are listed in the NOSC recall bill maintained by the Staff Duty Officer (SDO)/Assistant Staff Duty Officer (ASDO).

5.3.1 INCIDENT COMMAND

The first person arriving on-scene, who is cognizant of response and reporting requirements, will assume duties as the NOSIC, and will retain that responsibility until properly relieved by a designated response team member. It is essential that the identity of the Navy Incident Commander must be clear at all times to all concerned. When a transfer of responsibility takes place, it must be done in an orderly manner, with a positive control of events. The party assuming duties as the NOSIC must clearly state that they are doing so, and under what authority. A statement similar to the following is appropriate: "This is (the person)", and "as the I am assuming duties as Navy On-Scene Incident Commander".

5.3.2 NOSC OHS INCIDENT SPILL MANAGEMENT TEAM

The NOSC Spill Management Team (SMT) is designed to integrate ICS functions with Navy command requirements, and effectively interface with Area response organizations. Specific SMT billet responsibilities, assignments, and management checklists are contained in CNRSW Notice 5090.1 Series.

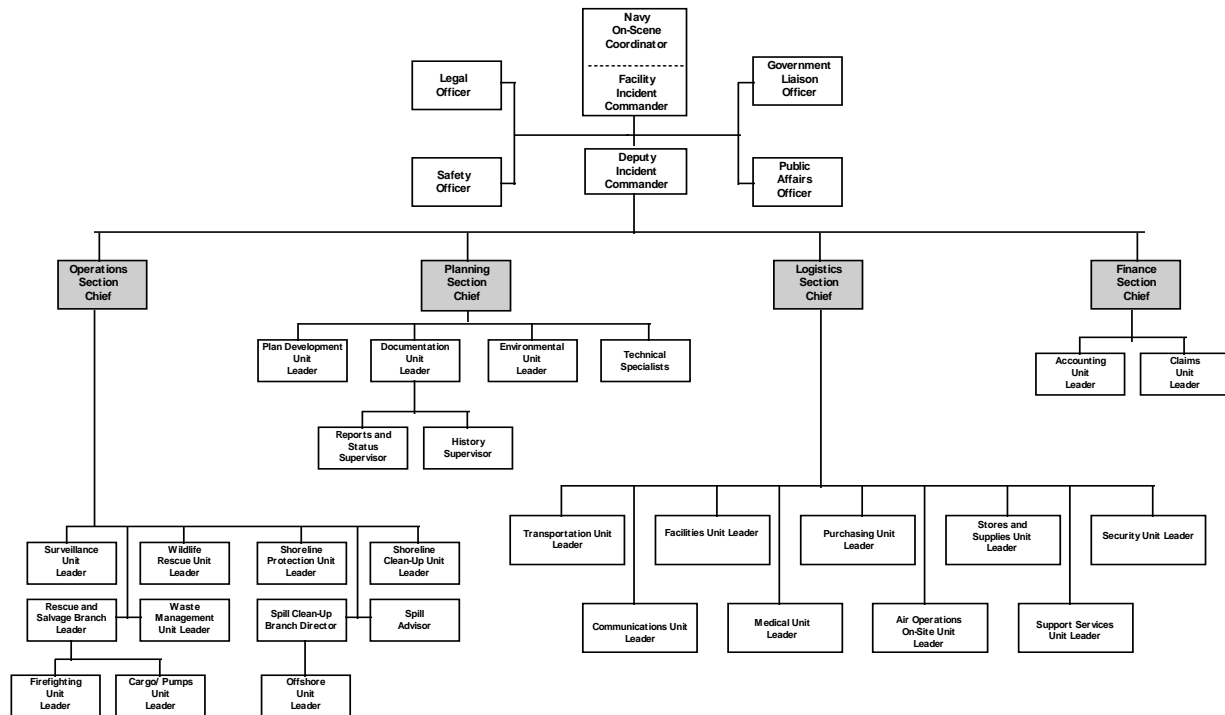


Figure 5.3: Basic CNRSW OHS Response Organization

Note: Actual billet assignments and responsibilities are contained in Chapter 2.

5.3.2.1 NAVY ON-SCENE INCIDENT COMMANDER (NOSIC)

The NOSIC is the person in charge at the incident, and must be fully qualified to manage it. As incidents become more complex, and a more highly qualified NOSIC is required, an individual will be assigned by the FIC or NOSC, as appropriate. The NOSIC will assign one or more deputies, with qualifications commensurate with the assignment, from an appropriate agency or agencies, as the situation warrants. Overall NOSIC responsibilities are:

- (1) Assess the situation and/or obtain incident briefing from prior IC.

16 Nov 00

- (2) Determine incident objectives and strategies.
- (3) Establish the immediate priorities, including protection of human health and safety.
- (4) Establish an Incident Command Post.
- (5) Establish an appropriate organization.
- (6) Brief appropriate staff and Section Chiefs.
- (7) Ensure planning meetings are scheduled as required.
- (8) Approve and authorize the implementation of an Incident Action Plan (IAP).
- (9) Manage incident operations in accordance with priorities delineated in reference (d).
- (10) Approve requests for additional resources and requests for release of resources.
- (11) Approve the use of additional non-IRT personnel as required.
- (12) Authorize release of information to news media.
- (13) Notify natural resource trustee(s) and coordinate with a NRDA representative.
- (14) Seek appropriate legal counsel.
- (15) Order the demobilization of the incident when appropriate.

5.3.3 NOSC COMMAND STAFF

There are a number of NOSIC support requirements outside of the standard SMT functional sections that may require dedicated staff assistance. The NOSIC will assign, as conditions dictate, personnel as members of the Command Staff. These personnel are called Officers, and report directly to the NOSIC. Members of the Command Staff will appoint assistants as required, and are also available as advisors to the functional section chiefs. Specific responsibilities and checklist are detailed in Chapter 2.

5.3.3.1 SAFETY OFFICER

The Safety Officer is responsible for monitoring safety conditions and developing measures for assuring personnel safety. The Safety Officer will correct unsafe acts or conditions through the regular line of authority. The Safety Officer ensures timely preparation and implementation of a Site Safety Plan, and includes appropriate safety input for each Incident Action Plan.

5.3.3.2 LEGAL OFFICER

The Legal Officer provides legal advice to the NOSIC and the NOSC on all aspects of response operations. Including claims filing procedures, documentation requirements, and permitting regulations. The Legal Officer provides liaison with the Office of General Counsel, Navy Judge Advocate General, other Navy legal resources, and outside agency legal representatives

5.3.3.3 PUBLIC AFFAIRS OFFICER

The Public Affairs Officer will be the point of contact for the media, or other organizations seeking information directly concerning the incident or event. This includes developing for release information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. For a large incident the NOSIC will establish a Joint Information Bureau (JIB) and a Joint Information Center (JIC). In a Navy spill incident the CNRSW Public Affairs Officer will initiate the establishment of the JIB and JIC. The Public Affairs Officer will head the JIB or assign another specialist. The coordination of information release is vital to avoid public confusion and adverse impact on response/recovery operations. The Public Affairs Officer will also plan and coordinate VIP arrangements establishing a protocol office when required.

5.3.3.4 *GOVERNMENT LIAISON OFFICER*

The Government Liaison Officer is the point of contact for personnel assigned to the incident from assisting or cooperating agencies. The Government Liaison Officer will provide liaison with outside agencies and convey information, requests, and legally constituted directives to the IC and Section Chiefs.

5.3.4 *FUNCTIONAL SECTIONS*

The duties and responsibilities of the functional sections are introduced below and detailed in Appendix X.

5.3.4.1 *OPERATIONS SECTION*

Directs and coordinates all tactical operations within the response area. It assists the Planning section in defining response goals and operational goals detailed in the incident action plan, develops mission assignments and schedules to accomplish the goals, identifies resource requirements, and, as appropriate, recommends release of resources. The Operations section also evaluates and reports the results of response operations.

5.3.4.2 *PLANNING SECTION.*

Collects, evaluates, and disseminates information about the incident and response. It develops action plans to accomplish stated response goals and objectives, evaluates alternative strategies and operational plans based on changing requirements, documents all response actions, and provides technical and environmental information to concerned parties.

5.3.4.3 *LOGISTICS SECTION*

Supplies all resources required to carry out the response and to support continuing operations.

5.3.4.4 *FINANCE SECTION*

16 Nov 00

Monitors incident related costs, handles all accounting services, and administers any necessary procurement contracts.

5.3.5 ICS BRANCH/UNIT DUTIES AND RESPONSIBILITIES

The number of personnel required in Operations, Planning, Logistics or Finance varies with the magnitude and circumstances surrounding the source and cause of the event. Section Chiefs will be familiar with the possible tasks that their sections might be required to perform. They will ensure that effective command and control is maintained as the organization expands. In an Incident Command organization, some Section Chiefs and Branch Chiefs may come from organizations other than the Navy.

5.3.6 RESPONSE TEAM SUPPORT

Other Navy Commands and federal agencies are available to provide additional support to the CNRSW SMT:

Note: Current phone numbers are contained in Appendix A, listed by activity:

Public Affairs

- ◆ Appropriate Navy Office of Information
- ◆ Coast Guard, National Strike Force Coordination Center, (NSFCC), Public Information Assist Team

Contracting

- ◆ Southwest Division, Naval Facilities Engineering Command, Code XX.
- ◆ Public Works Center San Diego. Code 700.

Response Strategies, Technical Support

- ◆ Coast Guard, accessed through the FOSC at the Marine Safety Office
- ◆ California Office of Spill Prevention and Response, San Diego Field Office
- ◆ NAVSEA SUPSALV

Medical Information

- ◆ Navy Environmental Health Center (NEHC)
- ◆ Agency for Toxic Substances and Disease Registry (ATSDR), Atlanta, GA

Scientific Support

- ◆ National Oceanic and Atmospheric Administration SSC
- ◆ Naval Facilities Engineering Service Center

On-Scene Operations

- ◆ Other Navy activities (listed in Appendix A)

Natural Resources Damage Assessment (NRDA)

- ◆ Applicable Engineering Field Division

5.4 AREA RESPONSE CENTER

The CNRSW regional emergency response center is established at the CNRSW Regional Communications Center, where major OHS pollution incidents will be monitored. However, due to the mandatory multi-agency involvement, in the event of a major Navy OHS pollution incident, the initial incident command center will be on-scene, and relocated to a neutral site if necessary. Primary area incident command centers:

Oil: MSO San Diego, 2716 N. Harbor Drive, San Diego, CA
(619) 683-2400 (24 Hours)

HS: San Diego County Hazardous Incident Response Team (HIRT)
(619) 338-2454 (Working Hours)
(619) 565-5255 (After Working Hours)

COMNAVREGSWINST 5090.1C
16 Nov 00

This page left blank intentionally.

Chapter 6

RESPONSE MANAGEMENT - FINANCE

6.1 FINANCE

The Finance Section is part of the NOSIC SMT and is responsible for handling all accounting services and personnel administrative matters. The Finance Section works closely with the Logistics Section to track all expenditures of the response operations. The Finance Section is lead by the Finance Section Chief and is assisted by the Accounting Unit Leader.

6.2 POLLUTION RESPONSE FUNDING

Navy activities are mission-funded to perform “housekeeping” cleanup associated with minor pollution incidents (less than 25 gallons). However, the spiller is responsible for all costs incurred for response and cleanup of pollution incidents caused by a Navy ship or activity. The major claimant of the spiller is ultimately responsible for funding of the response/cleanup effort. Because major pollution incidents occur so infrequently, there is no funding earmarked to support emergency OHS spill response activities in the DOD Five year Defense Plan (FYDP). Consequently, no Navy activity has a pre-established source of emergency funding for pollution response. Nonetheless, it is the responsibility of CNRSW or the local activity to initiate response activities for any Navy OHS spill that occurs within its area of responsibility (AOR). The NOSC, or responding activity, should seek a formal line of accounting data, funding citation, or reimbursement from the spiller’s chain of command as soon as possible. However, lack of an immediate funding transfer from the spiller to the responder must not delay unified Navy action.

In those situations where the NOSC or FIC must initiate response actions without advance funds from the spiller, the cost verification procedures described in Section 7.6 below are critical. The USCG is experienced in assessing and documenting expenditures for pollution response. Appendix D provides information on how to obtain USCG assistance for cost verification.

6.2.1 INITIAL EMERGENCY FUNDING

When a pollution incident occurs, the responsible party must identify and allocate funds for cleanup expenses quickly. When appropriate, initial funding can be provided by a responding local Navy shore activity for later reimbursement. If funds greater than those initially available from the spiller or local shore activity are required, the major claimant should be requested to provide additional funds. An estimate of funds required, and a schedule of when those funds must be available, should be developed by the NOSC Spill Management Team, particularly Operations, as soon as possible during the early phases of the response.

6.2.2 POLICY AND PROCEDURES

16 Nov 00

It is CINCPACFLT policy that funding for OHS spill response actions falls under the cognizance of the CINCPACFLT Other Base Operating Support (OB) Program Manager (N462). CNRSW N8 is designated the NOSC POC to approve emergency funding necessary to begin immediate response to spill events and act as Finance Section Chief when the NOSC SMT is activated. CNRSW N8 is responsible for generating a Navy message to CINCPACFLT N46/N462/N464/N465/N4622 requesting augmentation of station funds to support necessary efforts if station resources cannot support all funding requirements.

In the event that station funds are inadequate to cover the initial response, the following procedures should be taken by the regional financial POC:

1. Immediately send Navy message informing CINCPACFLT N46 of the incident, and identify funds necessary to continue effective response operations. Please identify funds required for initial response (OB) and repairs (RPM). Include other areas of funding as appropriate.
2. Long term clean up or remediation requirements must be addressed with the Fleet Environmental Office to determine applicability and scoping of EC requirements.
3. On the next business day following the spill event, contact the CINCPACFLT Management and Financial Officer (N46), Code N4622, (808) 474-6845 during working hours to address funding augmentation.

6.2.3 FUNDING LIMITATIONS

The amount of funding immediately available should not limit the extent of the initial response effort. When necessary, contracts for outside sources may be written with limited periods of performance and cost ceilings to the extent of available funds. Follow-on negotiations and contract modifications can be implemented as additional funds are received.

6.2.4 ESTIMATING CLEAN UP COSTS

During the initial pollution assessment, the NOSC Spill Management Team should evaluate the magnitude of the incident and estimate cleanup costs.

6.3 LOCAL/STATE GOVERNMENT SERVICES

The cleanup of larger pollution incidents may involve state or local governments. Requests for local or state government assistance will be made only by CNRSW. Arrangements of this nature usually will not require an accompanying funding document. Pertinent Memoranda of Understanding (MOUs) and/or similar support agreements between CNRSW and the state and local government agencies are included in Appendix F. These should be used to determine what services, if any, will be charged to the Navy and should include provisions for the intent and ability to pay for any services charged. Funding of these assistance services should be handled

as an accounting transfer of funds based on an agreed rate structure rather than by a contractual procurement action.

6.4 CONTRACTING

6.4.1 CONTRACTING AUTHORITY

Large pollution cleanups may require contracting authority beyond the authorized limits of the responsible party or local Navy responder. Significant contracting actions for emergency services shall be coordinated through the CNRSW Comptroller N8. The level of authority and contracting expertise necessary to assist the NOSC Spill Management Team can be acquired through the regional contracting department code. Follow-on construction contracts for restoration and similar work will normally be handled through the Naval Facilities Engineering Command Southwest Division.

SUPSALV maintains contracts for worldwide emergency salvage and pollution response. These contracts can be used by the NOSC or the responding activity to obtain equipment or services needed for a Navy OHS spill if funding is channeled through SUPSALV. SUPSALV is mission-funded to respond for response to fleet units and shore activities when they call for assistance. However, SUPSALV is not funded to actually perform cleanup operations. Appendix E contains information on obtaining SUPSALV services.

6.4.2 CONTRACTING STAFF SUPPORT

The CNRSW Finance Section Chief will assign contract management duties as appropriate. The Contracts Coordinator must ensure that support personnel are available to provide accounting information, cost estimates, purchasing authority, vendor interface, and verification of expenditures throughout the response. Additional contracting support personnel may be required for complex operations since all reimbursable expenditures must be approved and a daily summary of costs must be maintained throughout the cleanup effort.

6.5 REIMBURSEMENT OF FUNDS

6.5.1 NAVY REIMBURSEMENT PROCEDURES

At the conclusion of the response, a full accounting of all funds received and expenses incurred during the response must be made. After the full accounting, requests for reimbursement of any costs incurred by CNRSW or other commands, for the pollution response expenditures that are not normally considered the responsibility of the command, can be made through the appropriate chain of command. The following are examples of pollution response expenditures that are reimbursable from the spiller's major claimant:

- ♦ Navy Industrial Fund (NIF) funded activity costs including full labor costs and overhead;

16 Nov 00

- ♦ Travel and *per diem* costs of personnel who were requested to directly support the response effort;
- ♦ Local or state government costs in direct support of the response effort;
- ♦ Requested and approved overtime for Navy civilian personnel;
- ♦ Fuel expended by Navy or government vessels, vehicles, and aircraft which were requested by the NOSC or FIC to support the response;
- ♦ Supplies, materials, or minor equipment procured specifically for the response;
- ♦ Rental or lease of equipment obtained specifically for the response;
- ♦ Transportation of equipment not otherwise funded;
- ♦ Cost of civilian cleanup or disposal companies who were directly contracted by the NOSC or FIC;
- ♦ Contracted scientific/technical support;
- ♦ Repair, maintenance, and refurbishment of equipment used in the response;
- ♦ Return transport of equipment not otherwise funded;
- ♦ Final disposal of recovered oil, HS, and debris.

6.5.2 DLA/DFSC REIMBURSEMENT PROCEDURES

The recovery of Navy costs in support of pollution incidents associated with “capitalized” Defense Logistics Agency (DLA)/Defense Energy Supply Center (DESC) petroleum products is described in the DoD instruction 4140.25M, DoD Management of Bulk Petroleum Products. DESC will only fund the response/cleanup efforts associated with DLA/DESC-owned petroleum products if the spill did **not** result from gross operator negligence. After DLA/DESC products have been delivered to the end-user (e.g., aircraft, ship, heating tank, etc.) they are no longer the responsibility of DESC.

6.5.3 NON-DOD REIMBURSEMENT PROCEDURES

The recovery of Navy costs in support of U.S. Coast Guard requests are described in the Navy/Coast Guard Inter-Agency Agreement, which is contained in Appendix F. Navy activities responding to Coast Guard requests shall utilize the Pollution Incident Daily Resource Report Form (RCN-16451-1).

6.6 FUNDING DOCUMENTATION

All requests for equipment or services must be documented. A verbal request must be confirmed by an appropriate funding document or other acceptable record containing the full line of accounting data with cost ceilings from the spiller, or major claimant.

6.7 COST VERIFICATION

When services or equipment are contracted, the NOSC or delegated representative is responsible for verifying that the contractor performs as required by contract, and that costs submitted for payment are factual. The assignment of additional on-site personnel may be required for proper cost verification.

Commercial contracts issued for pollution cleanup contain provisions for daily cost summaries and specify the method for verification of performance.

Chapter 7 TRAINING

7.1 GENERAL REQUIREMENTS

A comprehensive, coordinated regional training program is essential to providing the foundation and long term continuity required for an effective OHS contingency planning and response program. NOSC program elements are complex, and require full coverage of regulatory, operational, and scientific subjects and skills. The diverse elements must be integrated into a focused planning and response effort that supports operational and regulatory requirements.

Chapters 10 and 24, reference (a), (http://neds.nebt.daps.mil/Directives/5090_1bc.pdf), provides a thorough review of training requirements and serve as the basis for the CNRSW NOSC training program. All Navy activities must review those requirements and ensure that the basic elements are satisfied. The requirements contained in that section, are not, however, totally inclusive, but rather are the minimum required to ensure the safety of personnel, vessels, and the facility, and to mitigate or prevent a discharge of oil or release of a hazardous substance. Personnel assigned responsibilities in this plan must review and be familiar with the contents of it as part of their job training.

In order to assist in the development of training programs under the Oil Pollution Act of 1990 (OPA 90), U.S. Coast Guard (USCG), U.S. Environmental Protection Agency (EPA), Research and Special Programs Administration (RSPA), and Minerals Management Service (MMS) assembled a Training Reference manual (TR manual) for oil spill response. The TR manual provides an outline of suggested training subjects for personnel assigned as Qualified Individuals (QI), members of a Spill Management Team, or a facility immediate response team (called "Facility Personnel" in the training reference). Sections 7.2, 7.3, and 7.4 and Tables 7-1, 7-2, and 7-3 are excerpts from the TR manual and will be used as the core training requirements for the Qualified Individual, the Spill Management Team, and Facility Personnel within the CNRSW AOR.

7.1.1 ACTIVITY OHS TRAINING PLAN (AOTP)

Every Navy activity that has the potential to cause an OHS pollution incident, provide response support, and/or is designated in this instruction as responsible for coordinating response activities, shall prepare and maintain an annual training plan, based on the calendar year, that meets the requirements of reference (a), applicable state and local regulations, and this instruction. Activities will ensure that personnel who are involved in OHS management and/or emergency response actions receive occupational safety and health required training and qualification. In addition, the ATOP must include required drills and exercises, general awareness training, and for duty personnel.

16 Nov 00

Training requirements shall be incorporated into routine business wherever possible to help incorporate the procedures into day-to-day operations, facilitate long term implementation, provide cost efficiency, and provide a realistic training environment. Activities should also take advantage of the training opportunities provided by outside multi-agency training, drills and exercises, and incorporate into ATOPs where practicable.

7.1.1.1 *ATOP PREPARATION AND SUBMISSION*

ATOPs will be prepared on an annual basis and retained at the activity level. Activities designated as FICs, and/or considered substantial harm facilities and have compliance requirements under the provisions of OPA 90, will submit the annual ATOP to CNRSW, Code N45, by 1 October each year. ATOPs will contain as a minimum:

Awareness:

- OSHA, including annual refreshers
- Drills and exercises

* Plus: Every person involved in operations at naval shore facilities which could result in pollution of surface or groundwater shall have received environmental overview training specified in Chapter 24 of reference (a). They will also receive specific comprehensive training in water pollution prevention required by the CWA and implementing regulations, and will be familiar with the provisions of Chapter 7 of reference (a).

All activities considered OPA 90 facilities will include the required annual training requirements, specifically:

QI (See Appendix L)
Semi-annual Equipment Deployment
Annual Tabletop.

NOSC PM will provide review and scheduling support for requirements.

7.1.1.2 *RECORD KEEPING*

Activity training shall be documented and maintained by each command in accordance with Chapters 10 and 24, reference (a), and applicable federal, state, and local requirements.

General requirements:

- ◆ All records shall be maintained for five (5) years.
- ◆ OPA 90 required drills may be self-evaluated by the activity, and credit taken for actual spill response events.

All required drills and exercises shall be reported in accordance with applicable ACPs or, as a minimum, in an annual summary to:

- ◆ CNRSW N45
- ◆ Cognizant FOSC
- ◆ Applicable State Agency.

The individual and facility shall maintain the completed course documentation.

7.2 TRAINING FOR QUALIFIED INDIVIDUAL

This section describes the training for the qualified individual and is an excerpt from the Training Reference (TR manual) for Oil Spill Response. Suggested training elements presented in the TR manual are summarized in Table 7-1. The following is paraphrased from Section 3 of the TR manual:

Response plan holders must identify a qualified individual who will act as the point of contact between the regulatory agencies and the owner or Operator of the vessel or facility. The responsibilities of the qualified individual go far beyond that of a mere intermediary. As defined in OPA 90, the qualified individual is that person identified in a response plan having "full authority to implement removal actions" on behalf of the plan holder. The qualified individual must have authority to commit the financial resources of the organization to prevent or clean up a spill.

Federal regulations require response plan holders to identify the type of training the qualified individual will receive. The goal is to ensure that the qualified individual is fully capable of performing his or her duties. Although the qualified individual is not expected to be a technical expert in vessel salvage, clean-up technology, nor pipeline repair, the qualified individual must be familiar enough with the organizations response plan to know the measures that must be taken under the circumstances. The qualified individual must ensure adequate steps are taken to mitigate the situation and know the capabilities of any oil spill removal organization (OSRO) contracted to respond on behalf of the company. The qualified individual should be thoroughly familiar with procedures to activate and contract with the company's OSRO.

Table 7-1 provides elements to be incorporated into training programs for a qualified individual.

Table 7-1 RESPONSE PERSONNEL TRAINING - QUALIFIED INDIVIDUAL	
Response Position	Suggested Training Element
Qualified Individual	Captain of the Port (COTP) Zones or Environmental Protection Agency (EPA) Regions in which the vessel will operate or facility is located
	Notification procedures and requirements for vessel or facility owners or operators; internal response organizations; federal and state agencies; and contracted oil spill removal organizations (OSROs) and the information required for those organizations
	Communication system used for the notifications
	Information on the cargoes carried by the vessel, or transferred, stored, or used by the facility, including familiarity with the material safety data sheets, special handling procedures, health and safety hazards, firefighting and spill response procedures
	Crew or facility personnel procedures used to mitigate or prevent any discharge or substantial threat of discharge of oil resulting from shipboard or facility operational activities associated with internal or external cargo transfers, storage, or use
	Procedures the vessel's crew may use to mitigate or prevent any discharge or substantial threat of a discharge of oil in the event of: <ul style="list-style-type: none"> • Grounding or stranding • Collision • Explosion or fire • Hull failure • Excessive list • Equipment failure
	Procedures for both the internal and ship-to-ship transfers of cargo in an emergency
	Procedures and arrangements for emergency towing, including the rigging and operation of any emergency towing equipment aboard the vessel
	Vessel crew or facility personnel responsibilities, and procedures for the use of shipboard or facility oil spill mitigation equipment which may be carried
	The vessel crew's responsibilities, if any, to initiate a response and supervise shore-based response resources
	Operational capabilities of the contracted OSROs to respond to the following: <ul style="list-style-type: none"> • Average most probable discharge (small discharge) • Maximum most probable discharge (medium discharge) • Worst case discharge
	Responsibilities and authorities of the qualified individual as described in the vessel or facility response plan and company response organization
	Procedures, if applicable, to transfer responsibility for the direction of response activities from vessel personnel to the shore-based spill management team

Table 7-1 (Continued) RESPONSE PERSONNEL TRAINING - QUALIFIED INDIVIDUAL	
Response Position	Suggested Training Element
Qualified Individual (cont.)	The organizational structure that will be used to manage the response actions, including: <ul style="list-style-type: none"> • Command and control • Public information • Safety • Liaison with government agencies • Spill response operations • Planning • Logistics support • Finance
	The responsibilities and duties of each oil spill management team member within the organizational structure
	The drill and exercise program to meet federal and state regulations as required under OPA
	The role of the qualified individual in the post discharge review of the plan to evaluate and validate its effectiveness
	ACPs for the areas in which the vessel operates or the facility is located
	The National Contingency Plan (NCP)
	Roles and responsibilities of federal and state agencies in pollution response
	Available response resources identified in response plan
	Contracting and ordering procedures to acquire oil spill removal organization resources identified in the response plan
	Occupational Safety and Health Administration (OSHA) requirements for worker health and safety (<i>29 CFR 1910.120</i>)
	Incident Command System/Unified Command System
	Public affairs
	Crisis management
	Procedures for the plan holder's ship salvage arrangements
	Procedures for obtaining approval for dispersant use or in situ burning of the spill
	Oil spill trajectory analyses
	Sensitive biological areas
Note: These suggested elements are taken from the USCG, EPA, RSPA, and MMS Training Reference manual (TR manual).	

7.3 TRAINING FOR SPILL MANAGEMENT TEAMS

This section describes the training for the spill management teams and is an excerpt from the Training Reference manual (TR manual) for Oil Spill Response. Suggested training elements presented in the TR manual are summarized in Table 7-2. The following is paraphrased from Section 4 of the TR manual:

A spill management team is also required to be designated by USCG regulations. The function of the team is to assist or relieve the activity's qualified individual in the actual response to an oil or hazardous substance spill. The team staffs the organizational structure identified by the company to manage response plan implementation. The team may also provide the operational oversight of field response personnel.

Although the size and qualifications of the spill management team have not been federally mandated, the team must be adequately staffed to ensure a credible response depending on the size of the spill. The number of members will be expected to grow if the situation warrants 24-hour operations and a cast of several thousand cleanup personnel. A well-structured response organization will be able to accommodate changes in the size of the spill management team and rapidly integrate additional members.

OSHA requires the senior emergency response official of hazardous substance emergency response organizations to use a site-specific ICS. The response management organization is built around five major management activities:

- Command
- Operations
- Planning
- Logistics
- Administration and Finance

Note: Figure 5-3 represents the CNRSW model ICS structure.

The key to training spill management team members is to train them according to their functional role within the response organization. Members staffing an operations center need to be trained differently from members whose primary function is logistics. Many of the activity's personnel will be able to draw upon skills they use and training they have obtained in everyday activities of running the facility or vessel operation. Personnel designated to administer the financial duties of spill response and cost documentation are especially likely to have such experience. Other personnel will be asked to fill roles which they may only perform in a crisis situation; therefore, due to the infrequency of an actual

16 Nov 00

crisis, these personnel would need extra periodic training to perform crisis functions.

If the individual will always fill the same spill management team function, training requirements will be narrow in scope. The goal is to train these personnel so that the team can function as a coordinated unit and direct the cleanup activities or preventative measures in an efficient and timely manner.

The following pages provide suggested elements which could be incorporated into the training program for the spill management team. The material should not be considered as mandatory training nor should it be considered all-inclusive.

Table 7-2 RESPONSE PERSONNEL TRAINING - SPILL MANAGEMENT TEAM	
Response Position	Suggested Training Element
Spill Management Team Member	The Captain of the Port (COTP) Zones or EPA Regions in which the vessel will operate or facility is located
	Notification procedures and requirements for vessel or facility owners or operators, internal response organizations, federal and state agencies; and contracted oil spill removal organizations and information required for those organizations
	Communication systems used for the notifications
	Procedures the vessel's crew may use to mitigate or prevent any discharge or a substantial threat of a discharge of oil in the event of: <ul style="list-style-type: none"> • Grounding or stranding • Collision • Explosion or fire • Hull failure • Excessive list • Equipment failure
	Vessel crew or facility personnel responsibilities, and procedures for use of shipboard or facility equipment which may be carried to mitigate an oil discharge
	Vessel crew's responsibilities, if any, to initiate a response and supervise shore-based response resources
	The operational capabilities of the contracted oil spill removal organizations (OSROs) to respond to the: <ul style="list-style-type: none"> • Average most probable discharge (small discharge) • Maximum most probable discharge (medium discharge) • Worst case discharge
	Responsibilities and authority of the qualified individual as described in the vessel or facility response plan and company response organization
	Procedures, if applicable, for transferring responsibility for direction of response activities from vessel personnel to the shore-based spill management team
	The organizational structure that will be used to manage the response actions, including: <ul style="list-style-type: none"> • Command and control • Public information • Safety • Liaison with government agencies • Spill response operations • Planning • Logistics support • Finance

Table 7-2 (Continued) RESPONSE PERSONNEL TRAINING - SPILL MANAGEMENT TEAM	
Response Position	Suggested Training Element
Spill Management Team Member (cont.)	The responsibilities and duties of the oil spill management team member within the organizational structure, in accordance with designated job responsibilities
	The training procedures as described in the response plan for members of the spill management team
	The drill and exercise program to meet the federal and state regulations as required by OPA
	Procedures for the post discharge review of the plan to evaluate and validate its effectiveness
	The Area Contingency Plans (ACPs) for the areas in which the vessel operates or the facility is located
	The National Contingency Plan
	Roles and responsibilities of federal and state agencies in pollution response
	Available response resources
	Contracting and ordering procedures to acquire OSRO resources, in accordance with designated job responsibilities
	Basic information on spill operations and oil spill cleanup technology including: <ul style="list-style-type: none"> • Oil containment • Oil recovery methods and devices • Equipment limitations and uses • Shoreline cleanup and protection • Spill trajectory analysis • Use of dispersants, <i>in situ</i> burning, bioremediation • Waste storage and disposal considerations
	Hazard recognition and evaluation
	Site safety and security procedures
	OSHA requirements for worker health and safety (29 CFR 1910.120)
	Incident Command System and Unified Command System
	Public affairs, as applicable to designated job responsibilities
	Crisis management, as applicable to designated job responsibilities
	Personnel management, as applicable to designated job responsibilities

16 Nov 00

Table 7-2 (Continued) RESPONSE PERSONNEL TRAINING - SPILL MANAGEMENT TEAM	
Response Position	Suggested Training Element
Spill Management Team Member (cont.)	Ship salvage procedures, vessel damage stability and hull stress considerations when performing shipboard mitigation procedures, as applicable to designated job responsibilities
	Emergency cargo transfer procedures, as applicable to designated job responsibilities
	Procedures for both the internal and ship-to-ship transfers of cargo in an emergency, as applicable to designated job responsibilities
	Procedures and arrangements for emergency towing, including the rigging and operation of any emergency towing equipment aboard the vessel, as applicable to designated job responsibilities
	Sensitive biological areas, as applicable to designated job responsibilities
	Procedures for directing the deployment and use of spill response equipment, as applicable to designated job responsibilities
Note: These suggested elements are taken from the USCG, EPA, RSPA, and MMS Training Reference manual (TR manual).	

7.4 TRAINING FOR FACILITY PERSONNEL

This section describes the training for the facility personnel and is an excerpt from the Training Reference manual (TR manual) for Oil Spill Response. Suggested training elements presented in the TR manual are also summarized in Table 7-3. The following is paraphrased from Section 6 of the TR manual:

Facility owners/operators are required to explain in detail how to implement the facility's emergency response plan by describing response actions to be carried out ensuring the safety of the facility and mitigating or preventing discharges. They must identify the response resources for worst case discharges and identify facility personnel responsible for performing specific procedures to mitigate or prevent a discharge or potential discharge.

Prevention Training Requirements: EPA's current oil pollution prevention regulations (*40 CFR part 112*), the Spill Prevention, Control and Countermeasures (SPCC) rule, states that training exercises should be conducted at least yearly for all personnel. Training should be given to new employees within one week of beginning work, and spill prevention briefings should be scheduled and conducted for the facility's operating personnel at least once a year. Prevention training must include, but is not limited to, the following subjects:

- Operations and maintenance of equipment;
- Applicable pollution control laws;
- Contents of facility's SPCC plan; and
- General facility operations.

Response Training Requirements: EPA's final facility response plan rule requires the owner or operator of a substantial harm facility to have a training program for those personnel involved in oil spill response activities [*59 FR 34097*; July 1, 1994]. The rule recommends that the training program be based on this reference manual, as applicable to facility operations, or a facility can develop its own response training program subject to approval by the appropriate EPA Regional Administrator.

MMS regulations require that personnel who respond to spills through deployment and operation of oil spill response equipment be provided with hands-on training classes at least annually [*30 CFR 250.43*].

Coast Guard regulations require the owner or operator of marine-transportation-related (MTR) facilities to identify the training to be provided to each individual with responsibilities in the response plan.

If the individual will always fill the same function in the facility response plan, training requirements will be narrowed in scope. If an activity desires

16 Nov 00

greater flexibility in use of its personnel and redundancy in available knowledge in case key personnel are unavailable, it may choose to add to the curricula presented to facility operators. The following table provides suggested elements which could be incorporated into the training program for facility personnel. The material should not be considered as mandatory training nor should it be considered all-inclusive.

Table 7-3 RESPONSE PERSONNEL TRAINING - FACILITY PERSONNEL	
Response Position	Suggested Training Element
Immediate Response Team Member	The Captain of the Port (COTP) Zone or EPA Region in which the facility is located
	Notification procedures and requirements for facility owners or operators, internal response organizations, federal and state agencies; and contracted oil spill response organizations (OSROs), and the information required for those organizations
	Communication system used for the notifications
	Information on the products stored, used, or transferred by the facility, including familiarity with the material safety data sheets, special handling procedures, health and safety hazards, and spill and fire fighting procedures
	Facility personnel responsibilities, and procedures for use of facility equipment which may be available to mitigate or prevent an oil discharge
	Specific procedures to shut down affected operations
	Procedures to follow in the event of discharge, potential discharge, or emergency involving the following equipment or scenarios: <ul style="list-style-type: none"> • Tank overfill • Tank rupture • Piping or pipeline rupture • Piping or pipeline leak, both under pressure and not under pressure, if applicable • Explosion or fire • Equipment failure • Failure of secondary containment system
Note: These suggested elements are taken from the USCG, EPA, RSPA, and MMS Training Reference manual (TR manual).	

16 Nov 00

Table 7-3 (Continued) RESPONSE PERSONNEL TRAINING - FACILITY PERSONNEL	
Response Position	Suggested Training Element
Immediate Response Team Member (cont.)	The operational capabilities of the contracted OSROs to respond to the: <ul style="list-style-type: none"> • Average most probable discharge (small discharge) • Maximum most probable discharge (medium discharge) • Worst case discharge
	Name of the qualified individual and contact information
	General responsibilities and authorities of the qualified individual as described in the facility response plan and company response organization
	The organizational structure that will be used to manage the response actions, including: <ul style="list-style-type: none"> • Command and control • Public information • Safety • Liaison with government agencies • Spill response operations • Planning • Logistics support • Finance
	The drill and exercise program to meet the federal requirements
	The Area Contingency Plan for the area in which the facility is located
	The National Contingency Plan
	Roles and responsibilities of federal and state agencies in pollution response
	OSHA requirements for worker health and safety (<i>29 CFR 1910.120</i>)
Note: These suggested elements are taken from the USCG, EPA, RSPA, and MMS Training Reference manual (TR manual).	

Appendix A

POINTS OF CONTACT

A.1 EMERGENCY (24 HOUR) CONTACTS

<u>Command/Agency/Activity</u>	<u>Telephone</u>
National Response Center (NRC)	800-424-8802
States: California	800-852-7550
Nevada	702-687-4240
Arizona	520-628-5478
U.S. Coast Guard:	
MSO San Diego	619-683-6470
MSO Los Angeles/Long Beach	562-980-4445
MSO San Francisco	510-437-3037
EPA Region IX	415-744-2000
Federal Fire Department	9-911
Navy Activities:	
CNRSW Port Operations (Recovery)	619-556-8006
CNRSW NOSC	619-524-2314
CNRSW PAO	619-532-1431
Naval Base Point Loma	619-553-7177/0467
Naval Base Coronado	619-545-8123
Naval Base San Diego	619-556-1246/1247
FISC Fuel San Diego	619-553-1315
NALF San Clemente	619-524-9212
NAF El Centro	619-339-2699/2524
NWS Seal Beach	562-594-7101
NAWS China Lake	619-939-2303
NAS LeMoore	209-998-4749/2052
NAS Fallon	702-426-2715
NPS Monterey	408-646-2441/2021
NAVAIRRESCEN Santa Clara	
CBC Port Hueneme	805-982-5387/4786
NAWC Pt Mugu	805-989-7412
PWC HAZMAT	619-556-9600
PWC Trouble Desk	619-556-7349

Adjacent NOSC(s):

16 Nov 00

COMTHIRDFLT Duty Officer	619-524-9501
CNRNW Duty Officer	360-981-7572
COMNAVRESFOR	504-678-5711
CNET Duty Officer	850-452-4010
Supervisor of Salvage:	
West Coast Operations - Port Hueneme	805-982-4463/2165
NAVSEA Duty Officer (Official Support Request)	703-602-7527
Major Claimant:	
CINCPACFLT	808-474-6391
Type Commanders:	
COMNAVSURFPAC Duty Officer	619-437-3333/2679
COMNAVAIRPAC Duty Officer	619-545-2816
COMSUBPAC (West Coast REP Duty Officer)	619-553-8665/8666
U.S. Marine Corps Activities:	
MCAS Miramar Duty Officer	858-200-7842
MCB Camp Pendleton Duty Officer	760-725-5617
MCAS Yuma Duty Officer	520-341-2252/2253
Natural Resource Trustees:	
In accordance with Area Contingency Plan	

A.2 NAVY PROGRAM CONTACTS

<u>Position/Activity/Department</u>	<u>Telephone</u>
NOSC Program Manager	619-532-1824
CNRSW Port Operations Officer	619-556-3146
Federal Fire Chief	619-524-6250
CNRSW Environmental:	
Hazardous Waste	619-524-6351
Water	619-524-6390
Natural Resources	619-545-2583
Pollution Prevention	619-524-6357
Air	619-524-6091

A.3 LOCAL GOVERNMENT ADMINISTERING AGENCIES

LAC Sector 1

Hazardous Material Management Division	619-338-2090
--	--------------

San Diego County Department of Health Services

LAC Sector 2

Imperial County Environmental Health 760-339-4203

LAC Sector 3

Orange County Health Care Agency 714-667-3780
Riverside County Environmental Health 909-358-5055
San Bernardino County Environmental Health 909-387-3080

LAC Sector 4

Santa Barbara County Fire Department 805-681-5554
Ventura County Environmental Health 805-654-2127
Los Angeles County Fire Department 213-890-4045

LAC Sector 5

Santa Barbara County Fire Department 805-681-5554
Inyo County Health Department 619-878-2411
Kern County Environmental Health 805-862-8700
Los Angeles County Fire Department 213-890-4045

LAC Sector 6

Monterey County Environmental Health 408-756-4511
San Luis Obispo County Environmental Health 805-781-5544
San Benito County Health Department 408-636-7681
Santa Cruz County Environmental Health 408-454-2022

LAC Sector 7

Kern County Environmental Health 408-756-4511
Tulare County Environmental Health 209-733-6441
Kings County Environmental Health 209-584-1411
Madera County Environmental Health 209-675-7823
Merced County Environmental Health 209-385-7391
Mariposa County Environmental Health 209-966-0200
Tuolumne County Environmental Health 209-533-5966
Stanislaus County Environmental Resources 209-525-4158

LAC Sector 8

San Francisco City & County Public Health Department 415-554-2795
San Mateo County Environmental Health 415-363-1305

16 Nov 00

Alameda County Environmental Health	510-567-6771
Santa Cruz County Environmental Health	408-454-2022
Contra Costa County Health Services Dept	510-646-2286
Solano County Environmental Health	707-527-1152
San Joaquin County Environmental Health	209-468-3433
Calaveras County Environmental Health	209-754-6399
Sacramento County Environmental Health	916-386-7681
Yolo County Environmental Health	916-666-8646
Marin County Office of Waste Management	415-499-0647
Sonoma County Environmental Health	707-527-1152
Lake County Environmental Health	707-263-2222
Yuba County Office of Emergency Services	916-741-6254
Sutter County Health Department	916-822-7400
Colusa County Environmental Health	916-458-4136
Tehama County Environmental Health	916-527-8020
Glenn County	916-934-6500
Mendocino County Environmental Health	707-463-4463
Humbolt County Environmental Health	707-441-2003
Trinity County Health Department	916-623-1358
Shasta County Environmental Health	916-255-5787
Del Norte County Health Department	707-464-7227
Siskiyou County Environmental Health	916-842-8230
Butte County Environmental Health	916-458-0397

LAC Sector 9

Contact State Agencies

LAC Sector 10

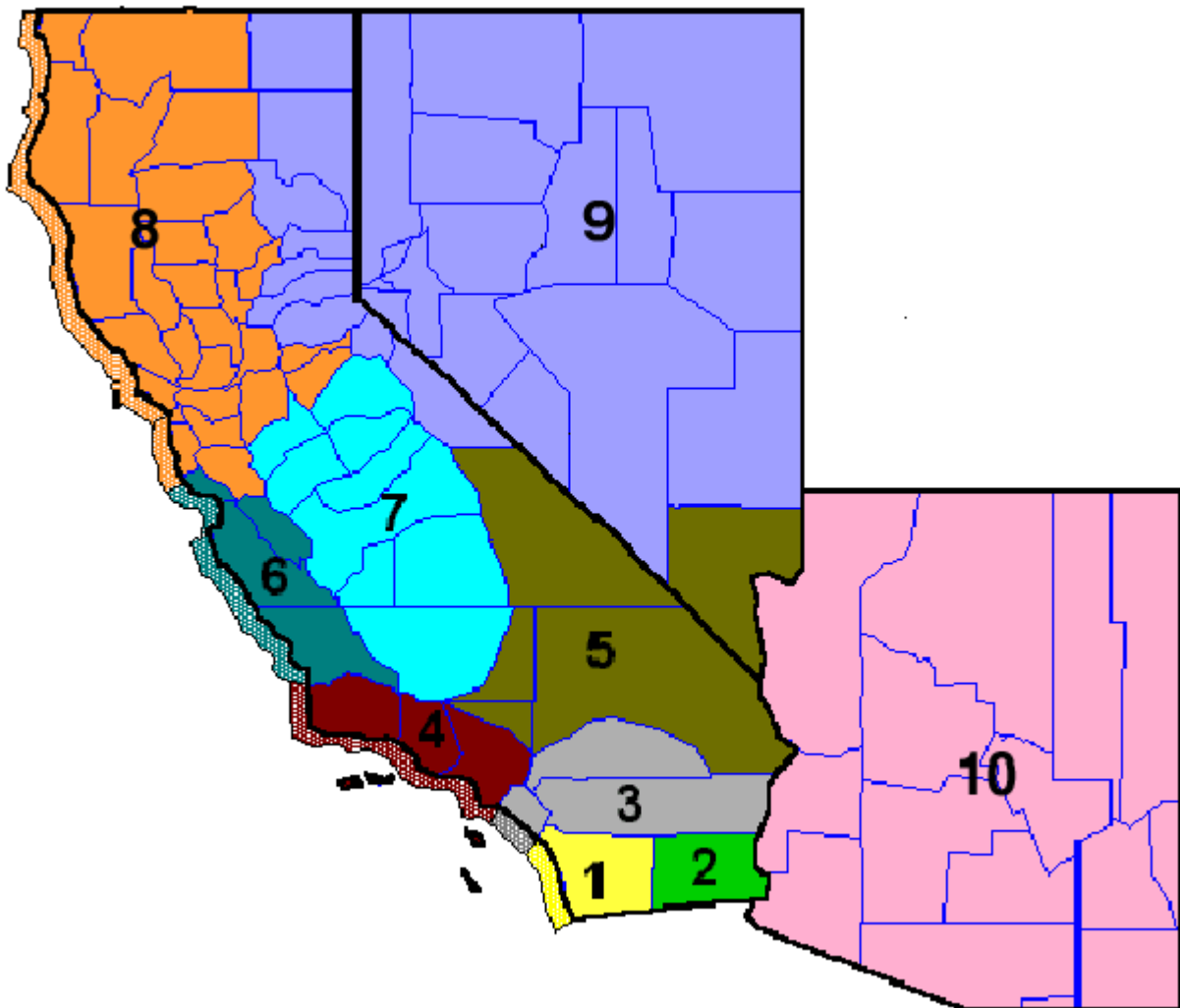
Contact State Agency

16 Nov 00

Appendix B RESPONSE SECTORS

B.1 RESPONSE SECTOR INFORMATION

In order to ensure timely response to all Navy OHS incidents in the CNRSW AOR, the region has been divided into response sectors. Each response sector has a senior Navy official assigned who has the responsibility of coordinating initial response actions, including required notifications. Officials assigned include Facility incident Commanders (FICs) as well as Local Area Coordinators (LACs), and will act as the Navy's Qualified Individual (QI) until relieved by the NOSC, if appropriate. The following pages are a summary of key data for each of these sectors.





16 Nov 00

SECTOR ONE

QUALIFIED INDIVIDUAL

CNRSW

LOCAL AREA COORDINATOR

CNRSW

FEDERAL ON-SCENE COORDINATOR

MSO San Diego (coastal only)
EPA Region IX

STATE

California Office of Emergency Services
(800) 852-7550

COUNTY ADMINISTERING AGENCIES

Hazardous Material Management Division,
San Diego County Department of Health
Services
(619) 338-2090

NEWS MEDIA

TELEVISION

- ♦ KNSD 39 (NBC)
- ♦ KFMB 8 (CBS)
- ♦ KUSI 51 (UPN)
- ♦ KGTV 10 (ABC)
- ♦ KPBS 15 (PBS)

RADIO

- ♦ KOGO AM 600
- ♦ KSD0 AM 1130
- ♦ KFMB AM 760

NEWSPAPERS

- ♦ San Diego Union Tribune
- ♦ North County Times

PRIMARY SPILL RISKS

- ♦ Oil spills from vessel transfer operations.
- ♦ Facility HS management operations.

MAJOR NAVAL INSTALLATIONS

- ♦ NAVBASE San Diego
- ♦ NAVBASE Coronado
- ♦ NAVBASE Point Loma
- ♦ MCB Camp Pendleton
(ACU FIVE LCAC Base)

COMMERCIAL PORTS

San Diego Unified Port District

AIRFIELDS

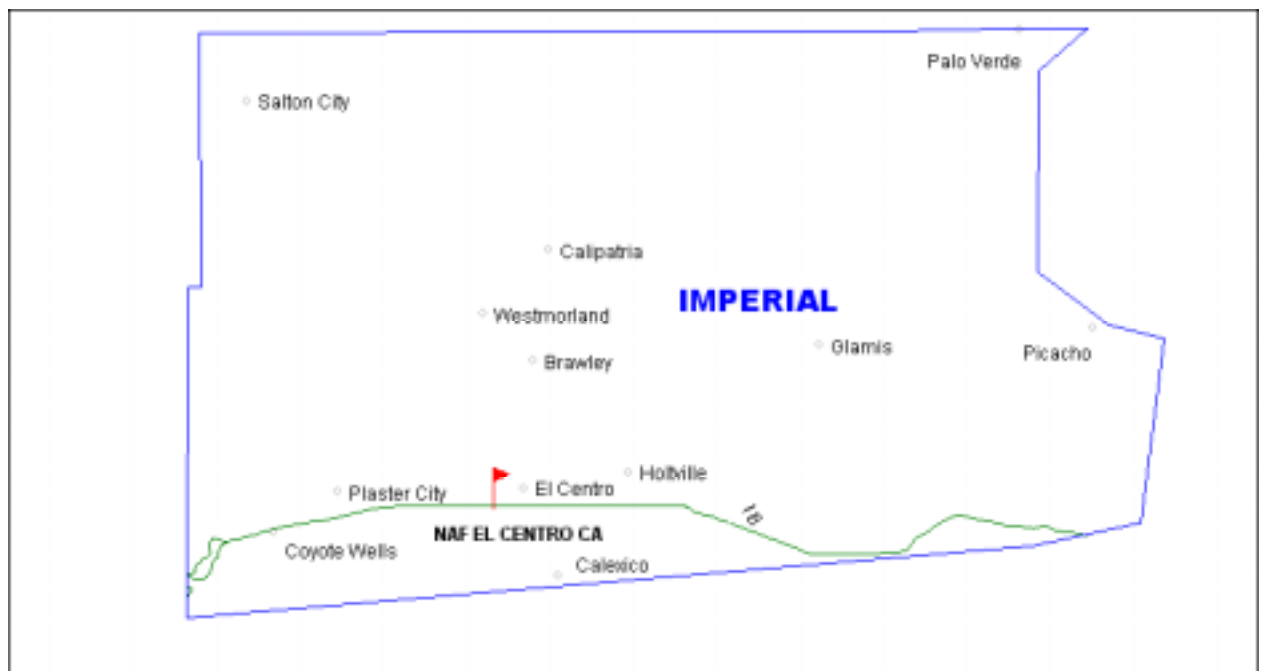
- ♦ Lindbergh Field
- ♦ Brown Field
- ♦ Carlsbad Airport
- ♦ MCAS Miramar
- ♦ NASNI

MAJOR HIGHWAYS

MAJOR BRIDGES

Coronado Bay Bridge

16 Nov 00



16 Nov 00

SECTOR TWO

QUALIFIED INDIVIDUAL

NAF EL CENTRO

LOCAL AREA COORDINATOR

NAF EL CENTRO

FEDERAL ON-SCENE COORDINATOR

EPA Region IX

STATE

California Office of Emergency Services
(800) 852-7550

COUNTIES

Imperial County

COUNTY ADMINISTERING AGENCIES

Imperial County Department of Environmental
Health Services

NEWS MEDIA

TELEVISION

- ♦ (See Sector 1)
- ♦ 07 KYVE (IND)
- ♦ 09 KECY
- ♦ 11 KYMA

RADIO

- ♦ (See Sector 1)
- ♦ KXO FM 107.5 El Centro
- ♦ KAMP AM 1430 El Centro

NEWSPAPERS

- ♦ San Diego Union Tribune
- ♦ Imperial Valley Press

PRIMARY SPILL RISKS

- ♦ NAF fuel facility.
- ♦ Aircraft mishap.
- ♦ Navy transportation related mishap.

MAJOR NAVAL INSTALLATIONS

- ♦ NAF El Centro
POC:

COMMERCIAL PORTS

None.

AIRFIELDS

NAF El Centro

MAJOR HIGHWAYS

- ♦ I-8
- ♦ US 95

MAJOR BRIDGES

None.

16 Nov 00

SECTOR THREE

QUALIFIED INDIVIDUAL

NWS SEAL BEACH

LOCAL AREA COORDINATOR

NWS SEAL BEACH

FEDERAL ON-SCENE COORDINATOR

MSO LA/LB (coastal only)
EPA Region IX

STATE

California Office of Emergency Services
(800) 852-7550

COUNTIES

- ♦ Orange
- ♦ Riverside
- ♦ [South] San Bernardino

COUNTY ADMINISTERING AGENCIES

Orange County Health Care Agency
(714) 667-3780

Riverside County Environmental Health
(909) 358-5055

San Bernardino County Environmental Health
(909) 387-3080

NEWS MEDIA

TELEVISION

- ♦ KNBC 4 (NBC) Los Angeles
- ♦ KCBS 2 (CBS) Los Angeles
- ♦ KABC 10 (ABC) Los Angeles

RADIO

- ♦ KFWB AM 980 Los Angeles

NEWSPAPERS

- ♦ Los Angeles Times

PRIMARY SPILL RISKS

- ♦ Ship spill while moored at NWSF
- ♦ Aircraft mishap.
- ♦ Navy transportation related mishap.

MAJOR NAVAL INSTALLATIONS

- ♦ NWS Seal Beach
- ♦ NWS Seal Beach Detachment Fallbrook

COMMERCIAL PORTS

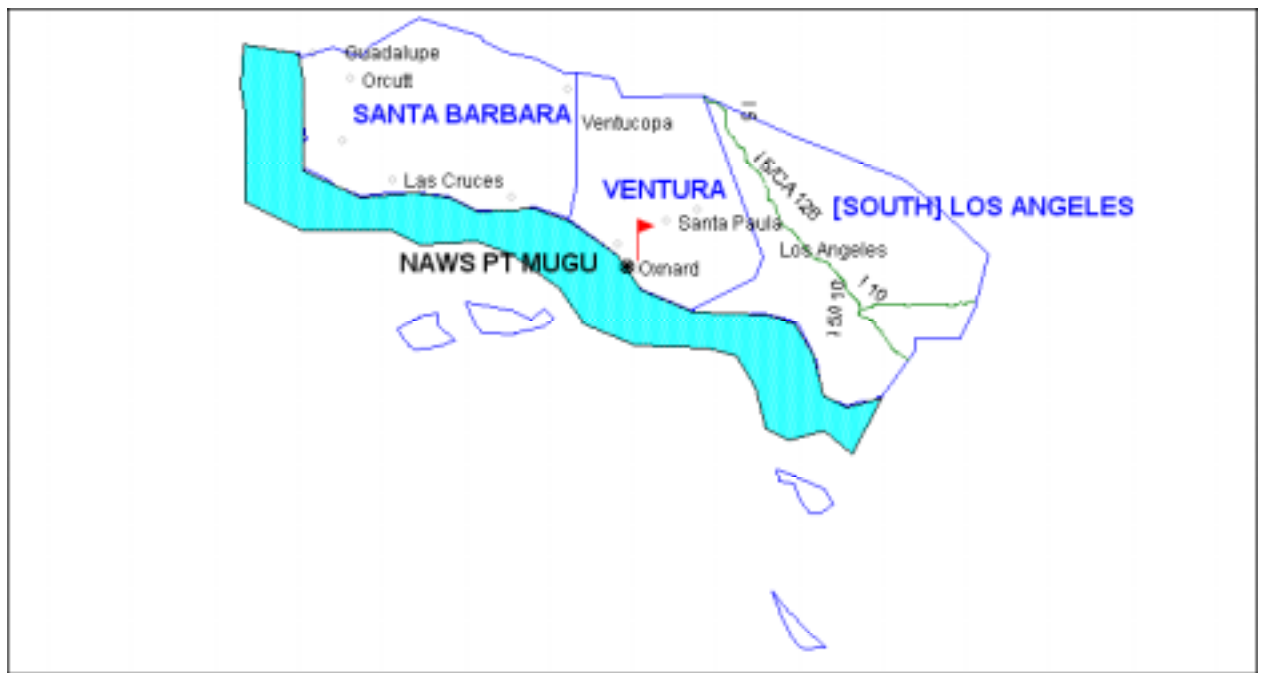
NWS Seal Beach

AIRFIELDS

- ♦ Orange County (John Wayne)

MAJOR HIGHWAYS

- ♦ I-5
- ♦ I-405
- ♦ US 1
- ♦ CA 22
- ♦ CA 91



16 Nov 00

SECTOR FOUR

QUALIFIED INDIVIDUAL

Naval Base Ventura County

LOCAL AREA COORDINATOR

Naval Base Ventura County

FEDERAL ON-SCENE COORDINATOR

MSO LA/LB (coastal only)
EPA Region IX

STATE

California Office of Emergency Services
(800) 852-7550

COUNTIES

- ◆ Santa Barbara
- ◆ Ventura
- ◆ [South] Los Angeles

COUNTY ADMINISTERING AGENCIES

Santa Barbara County Fire Department
(805) 681-5554

Ventura County Environmental Health
(805) 654-2127

Los Angeles County Fire Department
(213) 890-4045

NEWS MEDIA

TELEVISION

- ◆ KABC 10 (ABC) Los Angeles
- ◆ KNBC 4 (NBC) Los Angeles
- ◆ KCBS 2 (CBS) Los Angeles
- ◆ 63 KADY (IND) Oxnard

RADIO

- ◆ KTRO AM 1520 Port Hueneme
- ◆ KFWB AM 980 Los Angeles
- ◆ KNX AM 1070 Los Angeles

NEWSPAPERS

- ◆ Los Angeles Times
- ◆ Ventura County Star, Ventura

PRIMARY SPILL RISKS

- ◆ Overall LOW
- ◆ Range Mishap
- ◆ PT Mugu Fuel Facility
- ◆ Vessel refueling at Port Hueneme
- ◆ Facility HW management operations
- ◆ Vessel transfer operations in LA/LB

MAJOR NAVAL INSTALLATIONS

- ◆ NAWS PT MUGU
- ◆ NCBC PORT HUENEME

PORTS

- ◆ Port Hueneme
- ◆ Santa Barbara
- ◆ Los Angeles/Long Beach

AIRFIELDS

- ◆ Santa Barbara Municipal
- ◆ Oxnard Airport
- ◆ NAWS PT Mugu
- ◆ Los Angeles International

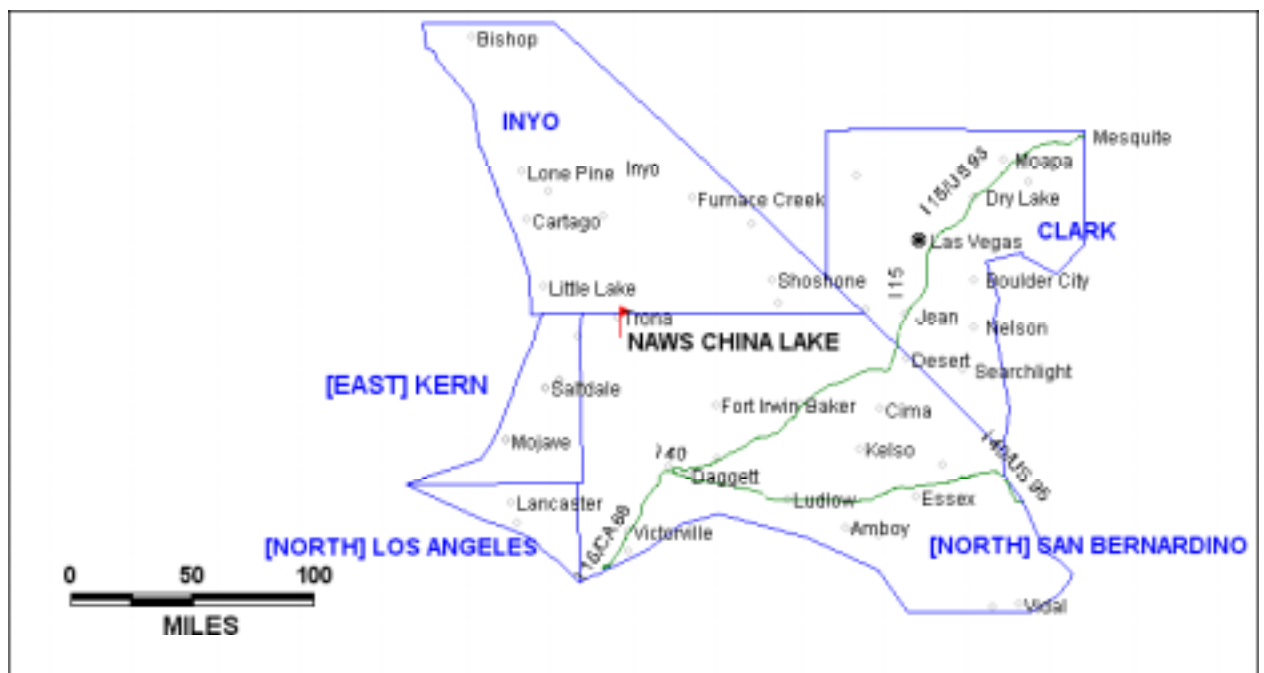
MAJOR HIGHWAYS

- ◆ I-405
- ◆ US 1
- ◆ US 101

MAJOR BRIDGES

None.

16 Nov 00



16 Nov 00

SECTOR FIVE

QUALIFIED INDIVIDUAL

NAWS CHINA LAKE

LOCAL AREA COORDINATOR

NAWS CHINA LAKE

FEDERAL ON-SCENE COORDINATOR

EPA Region IX

STATE

California Office of Emergency Services
(800) 852-7550

Nevada Department of Conservation and Natural
Resources
Division of Emergency Management
(702) 687-4240

COUNTIES

- ◆ Kern (eastern)
- ◆ Los Angeles
- ◆ San Bernardino
- ◆ Inyo
- ◆ Clark (Nevada)

COUNTY ADMINISTERING AGENCIES

Santa Barbara County Fire Department
(805) 681-5554

Inyo County Health Department
(619) 878-2411

Kern County Environmental Health
(805) 862-8700

Los Angeles County Fire Department
(213) 890-4045

NEWS MEDIA

TELEVISION

- ◆ 04 KVER (IND) Palm Desert
- ◆ 03 KESQ (ABC) Palm Springs
- ◆ 06 KMIR (NBC) Palm Springs

RADIO

- ◆ KSSI FM 102.7 China Lake
- ◆ KLOA AM 1240 Ridgecrest

NEWSPAPERS

- ◆ Los Angeles Times
- ◆ The Daily Independent (Ridgecrest)
- ◆ The Desert Trail (Twentynine Palms)
- ◆ Desert Dispatch (Barstow)

PRIMARY SPILL RISKS

- ◆ Fuel Facility
- ◆ Facility HW management operations
- ◆ Navy transportation related mishaps

MAJOR NAVAL INSTALLATIONS

- ◆ NAWS CHINA LAKE

AIRFIELDS

- ◆ NAWS China Lake
- ◆ Las Vegas Airport
- ◆ Laughlin Airport
- ◆ Inyokern Airport

MAJOR HIGHWAYS

- ◆ I-15
- ◆ I-40

MAJOR BRIDGES

None.

16 Nov 00



16 Nov 00

SECTOR SIX

QUALIFIED INDIVIDUAL

SUPERINTENDENT
NAVAL POST GRADUATE SCHOOL

LOCAL AREA COORDINATOR

SUPERINTENDENT
NAVAL POST GRADUATE SCHOOL

FEDERAL ON-SCENE COORDINATOR

MSO LA/LB
(San Luis Obispo County) (coastal only)

MSO San Francisco
(Monterey, Santa Cruz Counties (coastal only)

EPA Region IX

STATE

California Office of Emergency Services
(800) 852-7550

COUNTIES

- ♦ Monterey
- ♦ San Luis Obispo
- ♦ San Benito
- ♦ Santa Cruz

COUNTY ADMINISTERING AGENCIES

Monterey County Environmental Health
(408) 756-4511
San Luis Obispo County Environmental Health
(805) 781-5544
San Benito County Health Department
(408) 636-7681
Santa Cruz County Environmental Health
(408) 454-2022

TELEVISION

- ♦ 67 KSMS (IND) Monterey
- ♦ 08 KSBW (NBC) Salinas
- ♦ 46 KION (CBS) Salinas

RADIO

- ♦ KMAV FM 96.9 Monterey
- ♦ KIDD AM 630 Monterey
- ♦ KNRY AM 1240 Monterey

NEWSPAPERS

- ♦ Monterey County Herald
- ♦ Metro Santa Cruz

PRIMARY SPILL RISKS

- ♦ Overall LOW
- ♦ Vessel transfers inport Monterey/Santa Cruz
- ♦ Navy transportation related mishaps

MAJOR NAVAL INSTALLATIONS

- ♦ Naval Post Graduate School

PORTS

- ♦ Monterey
- ♦ Santa Cruz

AIRFIELDS

- ♦ San Luis Obispo
- ♦ Monterey
- ♦ Vandenburg AFB

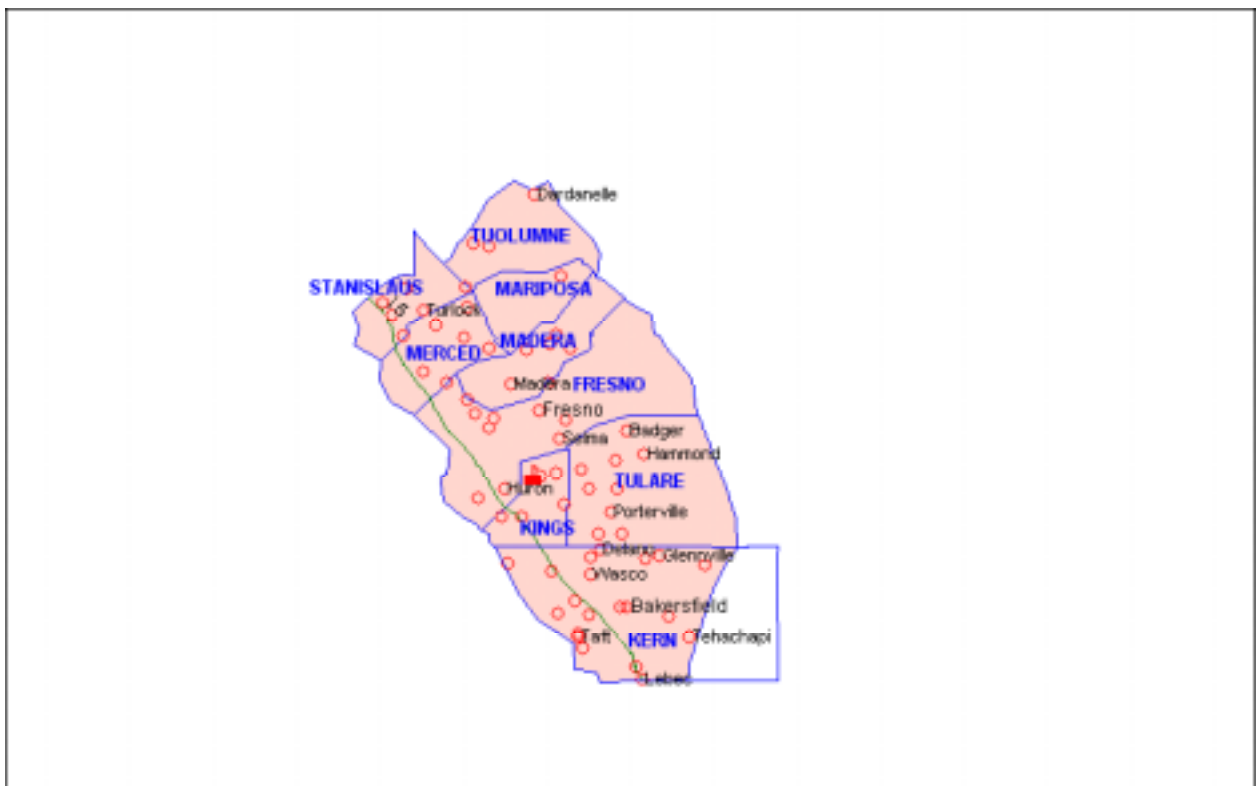
MAJOR HIGHWAYS

- ♦ US 1
- ♦ US 101
- ♦ CA 17

MAJOR BRIDGES

None.

16 Nov 00



16 Nov 00

SECTOR SEVEN

QUALIFIED INDIVIDUAL

NAS LEMOORE

LOCAL AREA COORDINATOR

NAS LEMOORE

FEDERAL ON-SCENE COORDINATOR

EPA Region IX

STATE

California Office of Emergency Services
(800) 852-7550

COUNTIES

- ♦ Kern (west)
- ♦ Tulare
- ♦ Kings
- ♦ Madera
- ♦ Merced
- ♦ Mariposa
- ♦ Tuolumne
- ♦ Stanislaus

COUNTY ADMINISTERING AGENCIES

Kern County Environmental Health
(408) 756-4511
Tulare County Environmental Health
(209) 733-6441
Kings County Environmental Health
(209) 584-1411
Madera County Environmental Health
(209) 675-7823
Merced County Environmental Health
(209) 385-7391
Mariposa County Environmental Health
(209) 966-0200
Tuolumne County Environmental Health
(209) 533-5966
Stanislaus County Environmental Resources
(209) 525-4158

NEWS MEDIA

TELEVISION

- ♦ 24 KSEE (NBC) Fresno
- ♦ 30 KFSN (ABC) Fresno
- ♦ 47 KJEO (CBS) Fresno

RADIO

- ♦ KJOP AM 1240 Lemoore

NEWSPAPERS

- ♦ Fresno Bee

PRIMARY SPILL RISKS

- ♦ NAS Lemoore Fuel Facility
- ♦ NAS Lemoore HS management operations
- ♦ Navy transportation related mishaps

MAJOR NAVAL INSTALLATIONS

- ♦ NAS Lemoore

AIRFIELDS

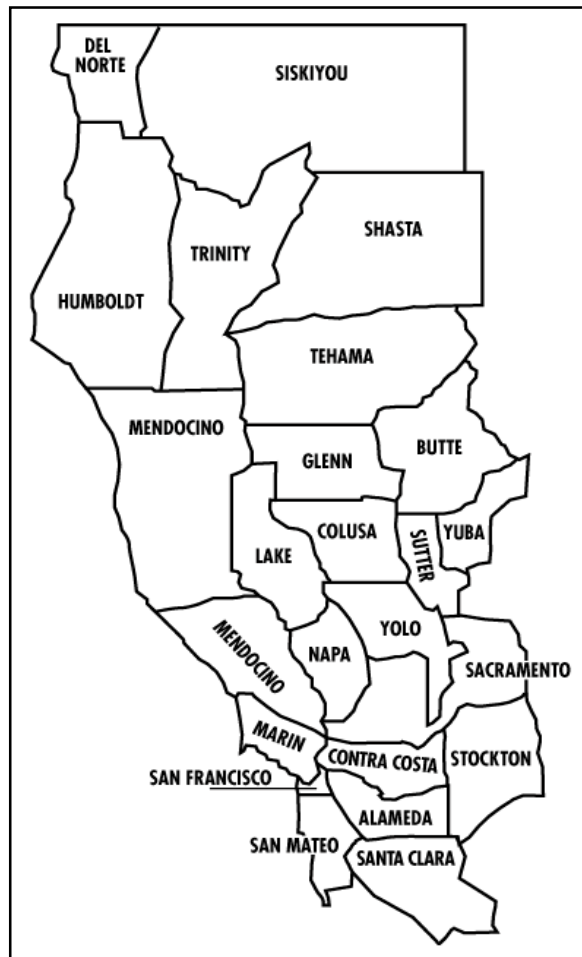
- ♦ NAS Lemoore

MAJOR HIGHWAYS

- ♦ I-5
- ♦ US 99
- ♦ CA 152
- ♦ CA 198

COMNAVREGSWINST 5090.1C

16 Nov 00



16 Nov 00

SECTOR EIGHT

QUALIFIED INDIVIDUAL NAVAIRRESCEN SANTA CLARA

LOCAL AREA COORDINATOR NAVAIRRESCEN SANTA CLARA (Moffet Federal Airfield)

FEDERAL ON-SCENE COORDINATOR MSO San Francisco (coastal only) EPA Region IX

STATE California Office of Emergency Services (800) 852-7550

COUNTIES

- ◆ San Francisco
- ◆ San Mateo
- ◆ Alameda
- ◆ Santa Cruz
- ◆ Contra Costa
- ◆ Solana
- ◆ San Joaquin
- ◆ Calaveras
- ◆ Sacramento
- ◆ Yolo
- ◆ Marin
- ◆ Sonoma
- ◆ Lake
- ◆ Yuba
- ◆ Sutter
- ◆ Colusa
- ◆ Butte
- ◆ Tehama
- ◆ Glenn
- ◆ Mendocino
- ◆ Humbolt
- ◆ Trinity
- ◆ Shasta
- ◆ Del Norte
- ◆ Siskiyou

COUNTY ADMINISTERING AGENCIES

San Francisco City & County Public
Health Department
(415) 554-2795

San Mateo County Environmental
Health
(415) 363-1305
Alameda County Environmental Health
(510) 567-6771

Santa Cruz County Environmental
Health
(408) 454-2022
Contra Costa County Health Services
Dept
(510) 646-2286
Solano County Environmental Health
(707) 527-1152
San Joaquin County Environmental
Health
(209) 468-3433
Calaveras County Environmental Health
(209) 754-6399
Sacramento County Environmental
Health
(916) 386-7681
Yolo County Environmental Health
(916) 666-8646
Marin County Office of Waste
Management
(415) 499-06647
Sonoma County Environmental Health
(707) 527-1152
Lake County Environmental Health
(707) 263-2222
Yuba County Office of Emergency
Services
(916) 741-6254
Sutter County Health Department
(916) 822-7400
Colusa County Environmental Health
(916) 458-4136
Tehama County Environmental Health
(916) 527-8020
Glenn County
(916) 934-6500
Mendocino County Environmental
Health
(707) 463-4463
Humbolt County Environmental Health
(707) 441-2003
Trinity County Health Department
(916) 623-1358
Shasta County Environmental Health
(916) 255-5787
Del Norte County Health Department
(707) 464-7227
Siskiyou County Environmental Health
(916) 842-8230
Butte County Environmental Health
(916) 458-0397

NEWS MEDIA/ TELEVISION

- ◆ 04 KRON (NBC) San Francisco
- ◆ 05 KPIX (CBS) San Francisco
- ◆ 07 KGO (ABC) San Francisco
- ◆ 11 KNTV (ABC) San Jose

RADIO

- ◆ KCBS AM 740 San Francisco

NEWSPAPERS

- ◆ San Francisco Examiner

PRIMARY SPILL RISKS

- ◆ Vessel transfers while visiting San Francisco, Oakland, Alameda, Concord
- ◆ Aircraft mishaps.
- ◆ Navy transportation related mishaps

MAJOR NAVAL INSTALLATIONS

- ◆ NAVCOMSTA Stockton
- ◆ FISC OAKLAND
- ◆ NAVFAC EFA WEST

PORTS

- ◆ Stockton
- ◆ Mare Island
- ◆ San Francisco
- ◆ Oakland
- ◆ Redwood City

AIRFIELDS

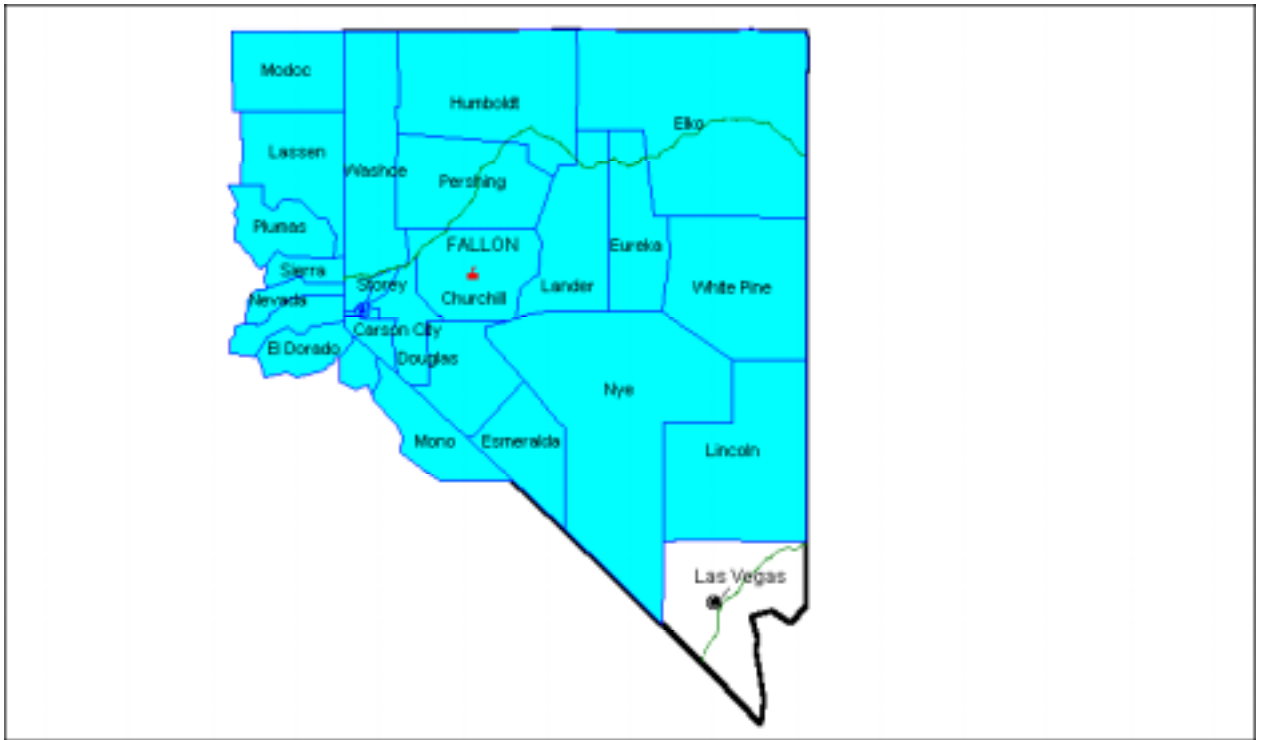
- ◆ Travis AFB
- ◆ Stockton
- ◆ Sacramento
- ◆ Arcata (Eureka)
- ◆ San Francisco International
- ◆ Oakland
- ◆ NASA (formerly NAS Moffet)
- ◆ San Jose

MAJOR HIGHWAYS

- ◆ I-5
- ◆ I-80, 280, 480, 580, 780, 880
- ◆ US 1
- ◆ US 101
- ◆ CA 92
- ◆ CA 94

MAJOR BRIDGES

- ◆ Golden Gate
- ◆ SF/Oakland Bay Bridge
- ◆ San Mateo
- ◆ San Rafael
- ◆ Dumberton.



16 Nov 00

SECTOR NINE

QUALIFIED INDIVIDUAL

NAS FALLON

LOCAL AREA COORDINATOR

NAS FALLON

FEDERAL ON-SCENE COORDINATOR

EPA Region IX

STATE

Nevada Department of Conservation and
Natural Resources
Division of Emergency Management
(702) 687-4240/5300 (24-hours)

California Office of Emergency Services
(800) 852-7550

COUNTIES

All Nevada (except Clark County)

California:

- ♦ Modoc
- ♦ Lassen
- ♦ Plumas
- ♦ Sierra
- ♦ Placer
- ♦ Nevada
- ♦ El Dorado

COUNTY ADMINISTERING AGENCIES

Use State Listing

NEWS MEDIA

TELEVISION

- ♦ 03 KVBC (NBC) Las Vegas
- ♦ 08 KLAS (CBS) Las Vegas
- ♦ 13 KTNV (ABC) Las Vegas
- ♦ 02 KTVN (CBS) Reno

RADIO

- ♦ KVLV FM 99.3 Fallon
- ♦ KVLV AM 980 Fallon

NEWSPAPERS

- ♦ Nevada Appeal Carson City
- ♦ Reno Gazette-Journal

PRIMARY SPILL RISKS

- ♦ NAS Fallon Fuel Facility
- ♦ Aircraft mishap
- ♦ NAS Fallon HS management mishaps

MAJOR NAVAL INSTALLATIONS

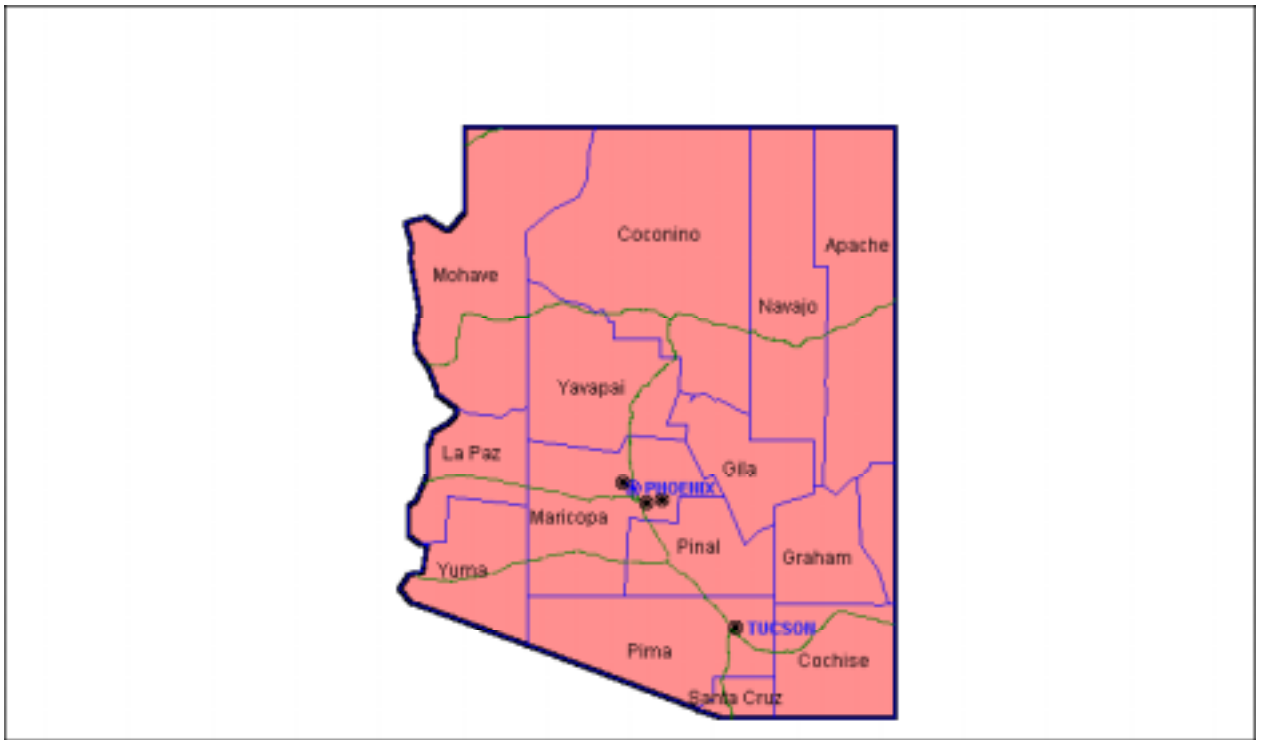
- ♦ NAS Fallon

AIRFIELDS

- ♦ NAS Fallon
- ♦ Reno Airport

MAJOR HIGHWAYS

- ♦ I-15
- ♦ I-680



16 Nov 00

SECTOR TEN

QUALIFIED INDIVIDUAL

CNRSW

LOCAL AREA COORDINATOR

CNRSW

FEDERAL ON-SCENE COORDINATOR

EPA Region IX

STATE

Arizona Department of Emergency
Management
(520) 628-5478

COUNTIES

All of Arizona

COUNTY ADMINISTERING AGENCIES

Use State Listing

NEWS MEDIA

TELEVISION

- ♦ 05 KPHO (CBS) Phoenix
- ♦ 15 KNXV (ABC) Phoenix
- ♦ 13 KOLD (CBS) Tucson

RADIO

- ♦ KPXQ AM 960 Tucson

NEWSPAPERS

- ♦ Arizona Daily Star, Tucson
- ♦ Arizona Republic, Phoenix

PRIMARY SPILL RISKS

- ♦ Navy transportation related mishap
- ♦ Aircraft mishap

MAJOR NAVAL INSTALLATIONS

- ♦ NOS Flagstaff
- ♦ NCCOSC Sentinel

PORTS

- ♦ None

AIRFIELDS

- ♦ MCAS Yuma
- ♦ Luke AFB
- ♦ Davis-Monthan AFB
- ♦ Flagstaff Airport
- ♦ Phoenix Airport

MAJOR HIGHWAYS

- ♦ I-8
- ♦ I-10
- ♦ I-40
- ♦ I-17

MAJOR BRIDGES

None

This page intentionally left blank.

Appendix C

SPECIAL CONSIDERATIONS

There are a number of "special case" situations which may not clearly fit into any standard OHS incident scenario. The summaries below are provided to assist in the managing of the most probable scenarios.

C.1 ABANDONED HAZARDOUS SUBSTANCES (HS)

HS which is discarded without utilizing proper HS management and documentation is considered to be an HS release, and must be properly responded to, disposed of, and reported if appropriate. The HS found abandoned should be managed by the appropriate FIC. If outside a FIC boundary, contact Federal Fire at 9-911 for a situation assessment. For removal support, contact PWC HAZMAT Response at 556-8002, or request their support through Federal Fire at 9-911. Attempt to determine who the responsible party is, and if it is reportable. Response/clean-up costs are to be recovered from the responsible activity when possible. Conduct reporting in accordance with Section 1.2.

C.2 BOOMING DESIGNATED SENSITIVE AREAS

San Diego Bay contains a number of environmentally sensitive areas that have been designated in the Area Contingency Plan as requiring specific, timely measures to minimize the impact of an oil spill. There are a number of preventive booming strategies (contained in Chapter 4 of the San Diego Oil Spill Quick Response Guide) that the Navy may be required to execute in the case of a significant Navy or non-Navy spill. It is essential that all spill response and management personnel are familiar with these scenarios, and the supporting equipment required to carry them out. During a major response, cognizant spill management personnel may task these strategies once personnel safety and containment measures are satisfactorily covered.

C.3 COLLISIONS WITH COMMERCIAL SHIPS

Ship collisions and groundings are often catastrophic events that have a potential to result in personnel casualties, significant environmental and economic impacts, and extensive public/press interest. The primary concern immediately following an incident is personnel safety and fire/explosive hazard. Initial response efforts will likely focus on these emergent issues. When responding to such an incident ensure that site safety requirements are fully understood by on-scene responders. Personnel should never enter the scene prior to the area being safe for entry. Utilize Fire Department site assessment capabilities to get an effective safety screen. Confer with the FOSC (Coast Guard) to get concurrence on the response strategy. The danger from an environmental perspective is that response strategy. The danger from an environmental perspective is that the focus will be on the "squeaky wheel", personnel casualties or fire/explosions, and an oil spill risks are not assessed in a timely manner. When notified of a collision or grounding, ENSURE an oil spill risk assessment is conducted as soon as possible.

16 Nov 00

NOTE: Under the National Contingency Plan (NCP), the Navy has a responsibility to provide oil spill response support in cases where Navy vessels are involved, or for non-Navy incidents when requested by the FOSC and Navy response will not negatively impact Naval operations. In collisions between a Navy vessel and a non-Navy vessel, Navy assets/resources are not to be committed directly in support, but rather through the FOSC (Coast Guard). Such incidents have the potential to produce complex damage claims. Ensure that CNRSW SJA (N5) is notified immediately of such an incident.

C.4 COORDINATION WITH ANOTHER NOSC(S)

For spills that cross or have the potential to cross into other NOSC AORs, timely coordination between adjacent NOSCs is critical. Examples include:

- ◆ Oil spills from a Navy vessel 10 miles off of Point Loma. Once the incident goes beyond 12 miles, Commander Third Fleet (COMTHIRDFLT) becomes responsible for that portion of the spill. Notify COMTHIRDFLT at 524-9536 (NOSC Program Manager) or 524-9509 (Command Center).
- ◆ Oil spills from a Navy vessel 10 miles out from Northern California, in the vicinity of the Oregon border. With the potential to impact both COMTHIRDFLT and CNRNW Seattle AORs, Notify COMTHIRDFLT (524-9536/9509); and CNRNW Seattle (360) 315-5400/5300.

C.5 FEDERAL, STATE AND LOCAL REGULATORS

During a spill incident there are certain outside agencies that are authorized to monitor response actions and provide input to the response process. The Navy's goal is to retain control of each incident. Under the provisions of the Federal Oil Pollution Act of 1990 (OPA 90), response management command and authority has been established in a Unified Command (UC) System. This means that there are three "partners" who share command responsibilities in directing a response. These consist of the Federal On-Scene Coordinator (FOSC), the Responsible Party (RP), and state and local authorities. In California, the Department of Fish and Game, Office of Spill Prevention and Response (OSPR) normally represent State and local groups, as the lead activity. The FOSC has final authority on response and clean-up issues, and can direct actions be taken if the response is considered inadequate.

NOTE: Any time the FOSC directs a response action, it must be clearly stated that they are doing so as the FOSC, the reason(s), and that there is command level agreement at the MSO. Ensure NBSD CO/XO/CDO, Port Operations Program Manager, and the NOSC are notified of this action immediately, and provide an assessment whether Navy response personnel concur. Any requests by State and local representatives must be made through the FOSC.

Under a Memorandum of Agreement (MOA) with the Navy, Coast Guard representatives may conduct investigations of oil spill incidents, including going onboard and taking fuel samples. Approval of conditions, including time and place, is at the discretion of the ship's

Commanding Officer. If there is any conflict, the NOSC is to be notified immediately to resolve the issue.

C.6 CNRSW FOSC RESPONSIBILITIES FOR HS RELEASES

As the FOSC for Navy HS releases, CNRSW retains certain responsibilities in accordance with the National Contingency Plan (40 CFR 300.135). Specifically:

- “Shall direct response efforts and coordinate all other efforts at the scene of the discharge or release.”
- Cannot delegate FOSC responsibilities.
- Collect/document pertinent facts and identify potentially responsible parties.
- Coordinate all response actions with appropriate Federal, state, local, and private response agencies.
- Notify key Federal agencies if the release threatens/ damages sensitive resources.

In accordance with the NOSC Plan, CNRSW Policy is to manage these incidents at the lowest possible level, through the local FIC/QI’s emergency response plans. It is ***imperative*** that the NOSC has a complete picture of the response activities, however, and is prepared to ***direct*** response actions if necessary. HS emergency response operations pose a significant potential for causing serious harm, including injury and death to personnel involved, as well as extensive environmental impact. Timely, positive action must be taken. The senior Federal Fire representative on CNRSW staff must be notified immediately, and act as the primary technical advisor in the case of an HS pollution incident. This expertise is to be used for incidents in the local San Diego area, as well as in outlying regions within the CNRSW area of operations (AOR).

Unlike an oil spill where the Coast Guard is the FOSC, and will take over direct operations if Navy efforts are ineffective, there is no “relief” for the NOSC (as the FOSC) in the case of an HS release on a Navy facility, or from a Navy vessel.

C.7 FISC SD FUEL FACILITY, RISK AND SPECIAL RESPONSE

The FISC Fuel Facility on Point Loma is the Navy’s largest concentration of petroleum adjacent to San Diego Bay. In addition, bulk oil carriers (oilers, tankers) regularly moor at the facility for bulk oil transfers. As such, a major incident at that facility has been designated the Navy’s “worst case” discharge scenario for the waters of San Diego Bay. Any such incident will require the immediate mobilization and dispatch of available FRT assets, and most likely execution of some preventive booming strategies.

C.8 INTEGRATION WITH OUTSIDE RESPONSE TEAMS

In the event of a major incident, if local Navy response assets are not adequate, one of the NOSC’s primary responsibilities is to coordinate additional assets as needed. When this level of support is required, the CNRSW SMT should be active, and coordination conducted by the

16 Nov 00

appropriate ICS sections. Due to long lead times, however, it is important to request outside support as early as possible. This may be done by the first personnel into the SMT, when approved by 00, N01, N3, or the SDO. It is better to have too much, rather than too little. Confer with the FOSC (Coast Guard) on oil spills for concurrence. Be advised that the Coast Guard can be expected to always be conservative and request more, rather than less or just enough. Coordination of these assets must be carefully managed, with full documentation of any arrangements made. Document what assets have been requested, estimated time of arrival, and actual arrival times.

C.9 LAND SPILLS THAT IMPACT WATERS - FIC RETAIN CONTROL

Under the regionalization of port operations in San Diego Bay, CO, NBSD, has been assigned responsibility as the Navy's Qualified Individual (QI) for oil spills originating on the waters of the bay. However, key shore facilities (NBC, NBPL, NBSD and FFF), which have large quantities of oil storage are required to maintain their own facility response plan (FRP), and manage any spill generated from a land-based site. In the event of such a spill, the NBSD FRT network becomes a spill response asset to be used in the same way, as a commercial facility would utilize a contractor response team. The facility having the spill retains responsibility for managing the spill through the SMT delineated in the FRP.

EXAMPLE: A large oil storage tank at NBC ruptures, spilling approximately 10,000 gallons. The oil covers a large ground area, but some gets into the storm sewer system and discharges directly into the bay. CO, NBC is notified and activates the facility emergency management system. The Emergency Operations Center is activated, and the NBC SMT begins management of the spill. NBC notifies COR of the spill and requests assistance. COR then directs response actions in accordance with Chapter 1 of this guide. The first FRT DET arriving on scene assumes duties as on-scene incident commander (OSIC) and provides an assessment to COR. COR updates NBC, then continues to monitor the situation. As other DETs arrive on-scene, they report in with the OSIC and receive assignments. All tasking for the FRT DETs will be by COR as requested by NBC.

C.10 SPILL RESPONSE IN PRIVATE SHIPYARDS

With the significant amount of work done on Navy ships in local commercial shipyards, procedures for response to spills within the boundaries of a private facility need to be clearly outlined. For spills from Navy ships while the ship is in an industrial availability in a private shipyard (i.e. NASSCO, Southwest Marine, and Continental Maritime) the following apply:

1. Initial response will be by ship's force and shipyard response personnel. In accordance with reference (a), the CO retains control of the vessel.
2. The shipyard will make required regulatory notifications.
3. Ship will make required Navy notifications.

4. COR will be notified of the incident by the ship, and assess the situation. If it appears that the spill is beyond the capability of the shipyard, COR will alert appropriate FRT DETs, and have them stand by to support the response.

5. If additional response assets are required, the FOSC (Coast Guard) representative will contact COR and request Navy assistance.

6. When dispatched, the Navy FRT DET will report to the FOSC on Channel 81A and request tasking.

7. COR will ensure an accurate cost accounting is maintained to support any future cost recovery.

C.11 MEDIA (PUBLIC RELATIONS) MANAGEMENT

Because of the potential for damage to natural resources and property, oil spills are sensitive events that are often highly publicized. In view of the significant inaccuracies often reported in regards to spills, and the fact that media presence can distract key response personnel from critical duties, it is essential that designated public affairs personnel manage media inquiries. Ensure that any media interest is part of the periodic incident assessments provided to NBSD CO/XO/CDO and the NOSC.

C.12 MSC/MARITIME ADMINISTRATION (MARAD) SUPPORT

Vessels which carry the designator United States Naval Ship (USNS) are public vessels that will be provided the same response support as Navy vessels.

EXAMPLES (blue and gold stack paint scheme):

USNS WALTER S. DIEHL (TAO-193)

USNS SIOUX (TATF- 171)

Vessels which are maintained and owned by the U. S. Maritime Administration (MARAD) and operating under control of MSC are public vessels and will be provided the same response support as Navy vessels.

EXAMPLES (red, white, blue stack paint scheme):

M/V Cape Decision

M/V Comet (T-AKR 7)

Vessels under time or voyage charter by MSC are not public vessels, and will be provided response support as other non-Navy incidents. This will require a request by the FOSC through the NOSC.

C.13 NOAA TECHNICAL SUPPORT

Computer models for predicting spill movements (trajectories) are maintained by the NOAA Hazardous Materials Response and Assessment Division. Computer modeling uses a climatological oil trajectory technique based on computations using archive and actual wind and current data. These models/forecasts are designed to help determine each day where best to place booms, skimmers, and other equipment to intercept or otherwise combat the effects of spilled material. NOAA support must be requested via the FOSC. Call (510) 437-5344 or pager (800) SKY-PAGE, PIN# 5798818.

C.14 NATURAL RESOURCES DAMAGE ASSESSMENT (NRDA)

Under OPA 90, trustees of natural resources are required to provide an assessment of damages caused by oil spills. In addition, RPs are required to pay damages in support of the damage assessments. The NRDA process is a complex one that the Navy could become deeply involved in as both a trustee and a potential RP. This participation could include data gathering. Specific guidance is contained in Appendix J.

C.15 NEAR SHORE

As defined in 46 CFR, the contiguous waters out to 12 NM CNRSW is responsible for all Navy oil spills within this zone off the shore of California.

C.16 NON-FRT FACILITIES (FOR OIL SPILLS)

The potential of spills occurring at non-FRT facilities require knowing where the are, risk, and response procedures. Facilities not having a full FRT capability will maintain an initial response capability of sufficient containment boom, sorbent materials, and other equipment to provide an **IMMEDIATE** response capability, until relieved by an FRT. Personnel on-scene conducting fuel transfer operations are responsible for initial response actions in accordance with local emergency plans. Primary areas are NBC South Complex and Broadway Pier.

C.17 NON-NAVY INCIDENTS

Under terms of the National Contingency Plan (NCP) and other agreements, the Navy is obligated to provide response support for non-Navy spills when requested by the FOSC, as long as it does not impact Navy mission readiness. Any request for this support must be made by the FOSC (Coast Guard) to the NOSC or COR directly. If such a request is received by COR, COR will assess whether the requested assets can be committed, then do so if there is no impact on Navy readiness. COR will immediately notify NAVBASE San Diego CO/XO/CDO of their action, and manage the response in accordance with the procedures in Chapter 1.

C.18 NOSC AREA OF RESPONSIBILITY (AOR)

The CNRSW AOR consists of the States of California, Nevada, and Arizona; and contiguous ocean areas out to 24 NM. At 24 NM, COMTHIRDFLT becomes the NOSC. To facilitate effective planning and response actions, the AOR is divided into 10 sectors, with a QI assigned for each one. Chapter 1 gives a detailed discussion of AOR assignments.

C.19 NOSC ASSUMPTION OF OPERATIONAL CONTROL

If the NOSC determines that a spill incident requires that they take over operational control, it is essential that the transfer take place in an orderly manner, with positive control of events. When the NOSC is ready to assume control, they must clearly state that they are doing so, and under what authority. A statement similar to the following is appropriate: **“THIS IS (THE PERSON)”, AND “AS THE NAVY ON-SCENE COORDINATOR, I AM ASSUMING CONTROL OF RESPONSE OPERATIONS”**. This assumption of authority must then be passed to all response personnel. NBSD CO/XO/CDO, Host CO/XO/CDO, and the FOSC must all be apprised of this immediately. Management of the incident will then be conducted.

C.20 NEAR SHORE SUPPORT REQUIREMENTS

In the case of a Navy pollution incident off the coast of California (out to 24 NM and including offshore islands), the NOSC is responsible for providing the support needed for ensuring a timely, complete response. Specific procedures are detailed in Chapter 1 of this guide. The primary resources available are SUPSALV response assets. For initial response actions, it is critical that the Navy official is dispatched to the scene to represent the Navy and conduct an incident assessment. This is accomplished through the use of response sector coordinators as discussed in Appendix B. The first person on the scene is the Navy’s On-Scene Incident Commander (OSIC), and serves as such until relieved by the NOSC if required. In the case of a major incident, the CNRSW FLRT will be dispatched to act as the NOSC representative. A SUPSALV representative will also travel to the scene to provide spill response support. The Coast Guard will retain authority as the FOSC, and in conjunction with state and Navy personnel, for the Unified Command.

NOTE: The Navy will retain control of the incident, however, until relieved by the FOSC, if required. Navy spill management personnel will not take specific direction from State representatives. Any State requirements must be addressed through the unified command.

C.21 OILED WILDLIFE

In the event of a significant oil spill, the recovery and rehabilitation of wildlife affected by the spill is a major concern. The graphic images of oiled birds and marine mammals are what people most vividly recall from the EXXON VALDEZ disaster. The media immediately focuses on “spill casualties”, and if the situation is not properly managed, it can quickly become a major

16 Nov 00

driver for response operations. The public reaction and subsequent agency response can be at odds with proper, prioritized spill response, and ultimately impact its effectiveness. In a major incident, the Wildlife Rescue Unit under the Operations Section will manage this function.

It is critical, however, that wildlife rescue begins in the initial emergency phase of an oil spill response. To provide timely, effective wildlife rescue support, the California Department of Fish and Game Office of Spill Response (OSPR) has established the Oiled Wildlife Care Network (OWCN). The Navy has agreed to utilize the OWCN for spills impacting California resources. Normally the OWCN will be activated by the Unified Command. If unilateral Navy action is required, activate the OWCN by contacting the OSPR Field Representative at (916) 445-0045.

C.22 QUALIFIED INDIVIDUAL

The *qualified individual* is a person designated by the responsible party (Navy) to manage emergency response actions. It is a regulatory term, with specific requirements/responsibilities. Specifically, the QI:

- Is available on a 24-hour basis, and able to arrive on-scene in a reasonable time.
- Is familiar with the applicable response plan.
- Is trained in the responsibilities of the QI.
- Has authority to activate the oil spill removal organization.
- Has authority to direct the obligation of necessary funds.
- Will act as liaison with the pre-designated FOSC.

Officials designated as FICs act as QIs for areas assigned. CNRSW is QI for all areas outside of designated FIC AORs.

C.23 SAN CLEMENTE ISLAND (SCI) REQUIREMENTS

SCI is a remote, environmentally sensitive area, that due to the nature of the operations conducted there, pose an oil spill risk (low). SCI is a Navy controlled island, administered by NAVBASE Coronado. SCI has a fuel farm that is regularly re-supplied with DFM and JP-5, by barge. A typical barge transfer is 30,000 gallons. A full FRT capability has been positioned at SCI, including a skimmer. This provides sufficient coverage to respond to a most probable worst case discharge. Due to the sensitive resources on/near SCI, and its remote location, it is imperative that proper notifications are made, and sufficient response resources are identified as soon as possible.

To contact SCI emergency response personnel directly, CALL:

SCI Security	DSN 524-9124
	(619) 524-9214

SCI Federal Fire DSN 524-9212
(619) 524-9212

C.24 SAN NICOLAS ISLAND (SNI) REQUIREMENTS

SNI is an instrumentation site owned by NAWS China Lake and managed via ISSA by Naval Base Ventura County. The island is located 65 NM southwest of the Point Mugu complex. The main support facilities include a 10,000 foot runway, an air terminal, housing, a power plant, fuel farm (primarily 750K gallons JP-5) and other necessary base support functions. SNI is immediately adjacent to the Channel Islands Marine Sanctuary and is a noted foraging ground for numerous marine mammals and birds. Due to the sensitive resources on/near SNI, and its remote location, it is imperative that proper notifications are made, and sufficient response resources are identified as soon as possible.

To contact SNI emergency response personnel directly, CALL:

NB Ventura DSN 351-3806
Environmental (805) 989-3806

NB Ventura DSN 551-4494
Security (805) 982-4494

C.25 SAN DIEGO OIL SPILL RESPONSE ORGANIZATION

CO, Naval Station San Diego has assumed duties as Facility Incident Commander (FIC) and Qualified Individual (QI) for oil spills on the waters of San Diego Bay, effective 1 October 1997. Primary responsibility is to ensure a timely and complete response to all Navy generated/reported spills within the harbor. To facilitate that effort, CO, NAVBASE San Diego has established a centralized Facility Response Team (FRT) with detachments at NAVBASE San Diego, NAVBASE Coronado, and NAVBASE Point Loma. To ensure operational coverage for vessels located at the FISC Fuel Facility, FISC maintains a separate FRT (staffing and equipment)) but will Central Oil Recovery (COR) at 556-8006, who assesses the situation and directs appropriate spill response support as required. All spills are to be reported directly to NAVBASE San Diego response actions. COR conducts on-scene operations, ship-shore coordination, and regulatory liaison.

C.26 SHORELINE CLEAN UP

One area that is not part of immediate response actions, but may be required after initial containment and recovery operations are complete, is shoreline clean-up. Shoreline clean up is a complex process, but is something that needs to be part of response planning as early as possible.

16 Nov 00

These efforts often require significant resources in terms of personnel, equipment and funding. When conducting any spill response action, the potential for impact on the shoreline needs to be considered, and raised to spill management personnel as soon as possible.

C.27 SUPSALV (SUPERVISOR OF DIVING AND SALVAGE)

SUPSALV originally developed its oil pollution control expertise to complement ship salvage operations. Proficiency in spill response now extends to major offshore and near-shore oil spills that may have profound potential impact to human and marine life. SUPSALV has a worldwide system in place to respond to all phases of oil pollution abatement, including containment, collection, and processing.

An extensive inventory of equipment is maintained at response centers located in Williamsburg, VA; San Diego, CA; Port Hueneme, CA; Anchorage, AK; and Pearl Harbor, HI. Large volume oil skimmers, open ocean containment booms, support craft, storage bladders, portable oil off-loading pumps, and related equipment are available for emergency response world-wide. All equipment is mobilized with qualified, trained operators.

This unique capability is available to any DOD activity requiring response assets. All responses are conducted on a cost-reimbursable basis. Coast Guard procedures to request and reimburse SUPSALV salvage and oil spill response support are detailed in a USN/USCG Interagency Agreement (IAA). Similar services are available to other Federal and State agencies. SUPSALV (NAVSEA OOC25) is under operational control of the Chief of Naval Operations. Tasking must be arranged via the SUPSALV at (703) 602-7527.

C.28 VISITING SHIPS AND NAVY SHIPS TO NON-NAVY PORTS

Foreign ships visiting Navy ports will be given the same response support provided to U.S. Navy ships. The NOSC will ensure effective response management.

Navy ships visiting non-Navy ports in California (Long Beach, Santa Barbara, Monterey, San Francisco, Eureka) will request guaranteed oil spill response coverage as part of the LOGREQ process when visiting non-Navy ports. This service will provide initial response coverage that meets compliance requirements. Service will be coordinated by INCHCAPE Shipping Services (415) 564-6920. In the event of a major incident, additional support will be provided by SUPSALV. If SUPSALV assets cannot arrive in a timely manner, additional support can be requested through INCHCAPE. See checklist in Chapter 1.

Appendix D

RESPONSE RESOURCES

As the Navy On-Scene Coordinator (NOSC), CNRSW has access to a number of resources beyond immediate staff support to assist in responding to oil and hazardous substance (OHS) pollution incidents. This appendix identifies sources of the following resources:

- Navy centrally procured OHS pollution response equipment;
- Commercial OHS pollution response contractors;
- Technical advisors with specialized expertise and experience in pollution response decision-making;
- Technical sources of information and reference data relative to OHS pollution response.

Note: All current phone numbers and POC information are listed in Appendix A.

D.1 NAVY EQUIPMENT

D.1.1 SUPSALV EQUIPMENT

NAVSEA, through the Supervisor of Salvage (SUPSALV), Code 00C, maintains the largest inventory of pollution response equipment in the Navy. This equipment is suitable for offshore and salvage-related pollution incidents and is located at SUPSALV warehouses for rapid deployment to pollution sites. In addition to equipment, SUPSALV provides trained contractor personnel to operate equipment, and experienced staff operations personnel to assist the NOSC. Table D-2 presents a list of the SUPSALV pollution control equipment.

D.1.2 FACILITY EQUIPMENT

Oil Spill Response

Naval Facilities Engineering Service Center (NFESC), centrally procures OHS response equipment and distributes it to high-risk locations identified throughout the Navy. Table D-1 shows the types and locations of Navy oil spill response equipment within the CNRSW AOR.

HS Response Equipment

In the CNRSW AOR, the primary Navy HS response organization is the Federal Fire Department. Federal Fire maintains an extensive inventory of response equipment, and shall be utilized as the main response support activity. In addition to Federal Fire, the Public Works Centers also maintain an extensive response support capability, including contracting and procurement authority for outside equipment.

D.2 COMMERCIAL RESOURCES

A number of commercial response organizations exist within the AOR. These commercial organizations may be considered for response efforts as a supplement to regional organic Navy assets. The current levels may be quickly determined through the applicable ACP:

MSO San Diego: www.uscg.mil/pacarea/pm/graphic/sdacp.htm

MSO Los Angeles/Long Beach: www.uscg.mil/pacarea/pm/graphic/lalbacp.htm

MSO San Francisco: www.uscg.mil/D11/msosf/dprtmnts/plan/acp+.htm

D.3 TECHNICAL ADVISORS

Several federal and non-federal sources can provide the NOSC with technical advice and can assist in critical decision-making for large or complex OHS response events. Although telephone numbers are provided for each of these sources in Appendix A, the NOSC will normally coordinate all requests for technical advice through the FOSC, SSC, or Southwest DIV.

D.3.1 USCG SUPERVISOR OF SALVAGE (SUPSALV)

As detailed in paragraph D.1.1 and Table D-1, SUPSALV can provide extensive equipment resources and trained operators in support of a pollution response effort. SUPSALV is also prepared to provide operational advice and assistance to the NOSC or to local FICs regarding oil discharge cleanup, contingency planning, training, and salvage. Requests for technical support should be made by phone to the numbers listed in Appendix A. Reimbursement is required if the requests involve the expenditure of direct funds, (e.g., travel).

The Navy and USCG have a standing Inter-Agency Agreement regarding the sharing of response resources (see Appendix F). The USCG can provide the NOSC with technical support, equipment, or personnel to assist in the response to a Navy OHS pollution incident. USCG District Offices provide the co-chairmen to the RRTs. USCG Marine Safety Offices (MSOs) generally provide the On-Scene Coordinator to pollution incidents under the jurisdiction of the Coast Guard (pollution incidents in the coastal zone, except for DOD hazardous substance releases). Most notably, the Coast Guard's National Strike Force (NSF), composed of three teams, one each (Pacific, Atlantic, and Gulf of Mexico) maintains personnel on standby to respond to incidents anywhere along the U.S. coast. National Strike Force members are highly trained and equipped to assist the On-Scene Coordinator in responding to major oil discharges and chemical releases, particularly in the marine environment. The Coast Guard also maintains the Public Information Assist Team (PIAT), a unit of skilled public affairs specialists. During a response event, the PIAT can assist the NOSC's Public Affairs Officer (PAO) with providing timely information to the public and the news media. The Coast Guard District Office legal

staffs can provide direct support to the NOSC's Legal Advisor. All requests for USCG assistance, whether for local or strike team support to the Navy response effort, or for advice or assistance from the PIAT, should be made through the area MSO.

D.3.2 NAVAL FACILITIES ENGINEERING COMMAND

NAVFAC, through its Engineering Field Divisions (EFDs), is responsible for providing technical support and other services to the NOSC or FIC upon request. The EFD can also secure other support through other NAVFAC, Navy, or federal technical organizations.

D.3.3 NOAA

NOAA Scientific Support Coordinators are a special force available to the Federal On-Scene Coordinator (FOSC). These individuals can provide direct support to the NOSC by assessing and integrating technical advice from a variety of experts and sources. The SSCs are particularly qualified to evaluate hazards to human health and the environment, and to identify a preferred course of action to reduce these hazards. The SSCs can also provide models of spill trajectories and assessments of impacts to environmental sensitivities.

By coordinating scientific activity on-site, the SSC can ensure that health and environmental concerns are factored into the decision making, allowing the OSC to focus on other important aspects of the response. A total of nine SSCs are located strategically throughout U.S. coastal areas to provide rapid and specialized support to pollution incidents. In the COMNAVREG SW AOR, the associated SSCs are located in Long Beach, Alameda, and Seattle. As with the other technical advisors, requests for assistance from the SSC should initially be directed initially through the FOSC for coordination.

D.3.4 REGIONAL RESPONSE TEAMS (RRTS)

The RRTs are composed of federal and state agency representatives with regional coordinating responsibilities for pollution incident contingency planning, preparedness, and response. Each EPA region (coinciding with the federal region) has an RRT. These regional bodies coordinate planning and preparedness functions prior to an OHS incident, and advise and assist following an actual pollution incident. Thus, the RRTs can assist the NOSC both in planning for and in responding to Navy pollution incidents. The EPA Region IX Headquarters and Eleventh Coast Guard District Co-Chair the Region IX RRT.

D.3.5 U.S. EPA

The EPA can provide technical advice or assistance in determining the environmental effects of oil discharges or hazardous substance releases and in selecting the preferred environmental pollution control technique. The EPA has also established the Environmental Response Team (ERT) to advise and assist the On-Scene Coordinator on issues of pollution containment, cleanup, and damage assessment. ERT members have expertise in biology, chemistry, hydrology, geology, and engineering. They:

16 Nov 00

- ◆ Provide access to special decontamination equipment for chemical releases;
- ◆ Provide advice to the OSC in:
 - Hazard evaluation
 - Risk assessment
 - Multimedia sampling and analysis
 - Cleanup techniques and priorities
 - Water supply
 - Decontamination and protection
 - On-site safety (including development and implementation of plans)
 - Application of dispersants
 - Environmental assessment
 - Degree of cleanup required
 - Disposal of contaminated materials

The ERT also provides both introductory and intermediate level training courses to prepare response personnel. Requests by the OSC for ERT support shall be coordinated through the designated FOSC.

D.3.6 HAZARDOUS SUBSTANCE RELEASE SUPPORT

Several government and industry organizations, especially at the local or county level, have special expertise, resources, and/or response capabilities relative to hazardous material releases. Access these through present mutual aid agreements managed by Federal Fire, and/or the Area FOSC.

16 Nov 00

Table D-1
NAVY FACILITY EQUIPMENT INVENTORY

<u>Equipment Description</u>	<u>Location and Quantity</u>			
	<u>NB</u>	<u>NB</u>	<u>NB</u>	<u>NALF</u>
	<u>SAN DIEGO</u>	<u>CORONADO</u>	<u>POINT LOMA</u>	<u>SAN CLEM ISL</u>
<u>Spilled Oil Recovery</u>				
Skimmer, RRS (Kvichak, Willard)	2	2	1	1
Skimmer, DIP 3001 (RRS replaces)	2	0	0	0
Skimmer, MED. (VAC Truck replaces)	1	0	0	0
Skimmer, Small Unmanned	0	0	0	0
Boat, Platform (boat &/or motor)	3	1/0	2	1
Boat, Utility (boat &/or motor)	5/4	5	2	2
Truck, Vacuum	1	1	1	1
Boom, Class 2	13	7	19	4
Boom, Class 1 (Class 2 replaces)	0	0	0	0
Boom, Permanent	0	18	18	0
Mooring System, Boom	0	33	8	0
Donut, Waste Oil (no replacement)	0	0	0	0
Barge, SWOB, Oil (no replacement)	6	2	0	0
Barge, SWOB, Sewage (no replacement)	2	0	0	0
	<u>PHIBCB</u>	<u>CBC PORT</u>	<u>NAS</u>	<u>MCB CAMP</u>
	<u>ONE</u>	<u>HUENEME</u>	<u>LEMOORE</u>	<u>PENDLETON</u>
<u>Spilled Oil Recovery</u>				
Skimmer, RRS (Kvichak, Willard)	0	1	0	0
Skimmer, DIP 3001 (RRS replaces)	0	0	0	0
Skimmer, MED. (VAC Truck replaces)	0	0	0	0
Skimmer, Small Unmanned	0	0	0	0
Boat, Platform (boat &/or motor)	0	0	0	1
Boat, Utility (boat &/or motor)	0	2	0	1
Truck, Vacuum	0	1	2	0
Boom, Class 2	0	5	0	5
Boom, Class 1 (Class 2 replaces)	0	2	0	0
Boom, Permanent	5	0	0	0
Mooring System, Boom	0	4	0	0
Donut, Waste Oil (no replacement)	0	0	0	0
Barge, SWOB, Oil (no replacement)	0	0	0	0
Barge, SWOB, Sewage (no replacement)	0	0	0	0

16 Nov 00

Table D-2
SUPSALV OIL SPILL RESPONSE EQUIPMENT INVENTORY

<u>Equipment Description</u>	<u>Location and Quantity</u>				
	<u>Williamsburg,</u> <u>VA</u>	<u>Port</u> <u>Hueneme,</u> <u>CA</u>	<u>San</u> <u>Diego,</u> <u>CA</u>	<u>Anchorage,</u> <u>AK</u>	<u>Pearl</u> <u>Harbor,</u> <u>HI</u>
<u>Spilled Oil Recovery</u>					
Skimmer Vessel System, (36' Aluminum Hull)	10	6	2	3	3
Skimming System (Sorbent Belt VOSS*)	1	0	0	1	0
Skimming System, (Weir VOSS*)	2	1	0	1	0
Skimmer, Sorbent Rope Mop (36")	1	0	0	2	0
Boom, Fire (18" x 350')	1	0	0	0	0
Boom Van (42" x 1980' Boom)	11	5	1	2	3
Boom Mooring System	25	31	6	12	4
Boom Mooring System (Deep Water Extension)	2	27	0	10	0
Boom Handling Boats (24' 260 HP Diesel)	10	7	2	2	3
Boom Tending Boats (19' & 23' Inflatable)	2	1	0	2	2
Boom Tending Boats (18' Rigid Hull)	4	5	0	3	1
26k Oil Storage Bladder	2	2	0	2	2
50k OH Storage Bladder	3	2	2	0	0
136K Oil Storage Bladder	4	5	0	1	1
290K Oil Storage Bladder	1	0	0	1	1
Salvage Support Skimmer System	2	2	0	0	1
Inland Support Skimmer System	0	0	0	2	0
<u>Casualty Offloading</u>					
Pump System, POL 6" Submersible	4	2	1	2	4
Viscous Oil Transfer System	3	3	0	2	1
Floating Hose (6" x 5800')	1	1	0	0	0
Hot Tap System	2	2	0	0	1
Boarding Kit	1	1	0	0	1
Fender System (14' x 60' LP Air)	1	1	0	0	0
Fender System (10' x 50' LP Air)	1	4	0	1	0
<u>Ancillary Equipment</u>					
Command Trailer (40')	2	2	0	0	0
Command Van (20')	1	2	1	1	1
Shop Vans	3	2	1	1	1
Rigging Vans	2	1	1	1	1
Supply Van	1	0	0	0	0
Personnel Bunk Vans	3	1	0	0	0
Beach Transfer System (4-WD Vehicles)	1	1	0	0	0
Communication System (Satellite Phone, Land)	5	0	0	0	0
Communication System (Satellite Phone, Ship)	2	0	0	0	0
Oil Water Separator (Parallel Plate 100 gpm)	1	1	0	1	0
Cleaning System	1	2	0	1	1
Vacuum Pump/Skimmer System	2	0	0	0	0
Firefighting System, Off-Ship (OSFS)	4	3	0	1	1
Material Transfer System	1	0	0	0	0

Appendix E

ICS FORMS AND CHECKLISTS

The forms in this appendix are to be used for OHS emergency response situations. Below is a list of the forms contained in this section:

- ◆ NOSC Checklist
- ◆ Deputy NOSC Checklist
- ◆ Public Affairs Officer Checklist
- ◆ Safety Officer Checklist
- ◆ Government Liaison Checklist
- ◆ Legal Officer Checklist
- ◆ Operations Section Checklist
- ◆ Planning Section Checklist
- ◆ Logistics Section Checklist
- ◆ Finance Section Checklist
- ◆ Incident Briefing Forms
- ◆ Response Objectives Form
- ◆ Assignment List Form
- ◆ Incident Radio Communications Plan Form
- ◆ Medical Plan Form
- ◆ Daily Meeting Schedule Form
- ◆ Meeting Description Form
- ◆ Resources At Risk Summary Form
- ◆ Unit Log Forms
- ◆ Air Operations Summary Form
- ◆ Executive Summary Form
- ◆ General Plan Form
- ◆ Incident Action Plan Form
- ◆ ACP Site Index / Response Actions Form

<i>NOSC Emergency Action Checklist</i> <i>Navy On-Scene Coordinator (NOSC)</i>		
<i>Check (X) appropriate actions when completed</i>		
<i>Initial Assessment</i>		<i>Gather basic spill information to determine appropriate level of response.</i>
		* <i>Can area be safely approached?</i>
		* <i>Is evacuation appropriate?</i>
		* <i>Is the source of the spill controlled?</i>
		* <i>Has the Immediate Response Team been activated?</i>
		* <i>Are additional Spill Management Team personnel required?</i>
<i>Notifications</i>		<i>Verify that notifications have been made (see Chapter 1).</i>
<i>Additional Resources</i>		<i>Assess potential need for additional response resources.</i>
		* <i>Has funding authority been established?</i>
		* <i>Determine staging area.</i>
		* <i>Establish forward command post, if appropriate.</i>
<i>Command Center</i>		<i>Activate Emergency Operations Center.</i>
		* <i>Determine security requirements.</i>
		* <i>Establish check-in procedures.</i>
<i>Integration</i>		<i>Reassess spill, and integrate response organizations/staff.</i>
<i>Priorities</i>		<i>Establish priorities, and disseminate to staff.</i>

<i>NOSC Emergency Action Checklist Deputy NOSC (also called Deputy Incident Commander)</i>		
<i>Check (X) appropriate actions when completed</i>		
<i>Notifications</i>		<i>Make initial contact with the NOSC to determine initial actions (i.e., convene to go on site, etc.)</i>
<i>Assist NOSC</i>		<i>Assist NOSC in the following, as required:</i>
		<i>* Initial site assessment</i>
		<i>* Activation of EOC</i>
		<i>* Establishment of forward Command Post</i>
		<i>* Initial briefing of Command Staff</i>
		<i>* Identification of Navy ICS Section Chiefs</i>
		<i>* Mobilization of response resources</i>
<i>Determine Priorities</i>		<i>Coordinate response priorities with NOSC, FOSC, and State OSC and ICS Section Chiefs</i>
<i>Schedule Unified Command meeting</i>		<i>Identify time and place for first Unified Command meeting</i>
<i>Review Site Safety</i>		<i>Review Site Safety Plan</i>

16 Nov 00

<i>NOSC Emergency Action Checklist Public Affairs Officer (PAO)</i>		
<i>Check (X) appropriate actions when completed</i>		
<i>Initial Assessment</i>		<i>Gather initial spill information useful for an initial press release.</i>
		<i>* Obtain briefing from NOSC or Deputy NOSC.</i>
		<i>* Obtain briefings from Legal, Safety, Government Liaison.</i>
		<i>* Obtain briefings from Operations and Planning Section Heads.</i>
<i>Notifications</i>		<i>Notify following, as appropriate.</i>
		<i>* Activity PAO.</i>
		<i>* Federal and State OSCs PAOs.</i>
		<i>* Command PAO Staff.</i>
		<i>* Applicable NAVINFO Office.</i>
		<i>* Press officials, as appropriate.</i>
<i>PAO Command Center</i>		<i>Activate/mobilize PAO staff. Select location and establish JIB/JIC.</i>
<i>Press/Media Location</i>		<i>Establish press room.</i>
<i>News Releases</i>		<i>Issue initial press release as quickly as possible. Issue “Good News” package on Navy prevention/response program.</i>

<i>NOSC Emergency Action Checklist Safety Officer</i>		
<i>Check (X) appropriate actions when completed</i>		
<i>Initial Assessment</i>		<i>Gather basic spill information to determine immediate health and safety hazards to responders and public.</i>
		<i>* Rescue/medical treatment required for any personnel in or around incident?</i>
		<i>* Can responders safely go in?</i>
		<i>* Can hazard source be abated?</i>
<i>Evacuation</i>		<i>Coordinate evacuation with Disaster Ops Officer, if required.</i>
<i>Notifications</i>		<i>Notify/Contact activity site safety manager, initial responders (IRT or Fire Dept.), local health officials, Medical Unit Leader.</i>
<i>Additional Resources</i>		<i>Assess need for the mobilization of additional health and safety personnel.</i>
<i>Safety Zones</i>		<i>In coordination with Site Security, establish safety zones.</i>
<i>Site Safety</i>		<i>Conduct site safety briefings for all response personnel. Determine need and level of personnel protection. Issue initial site safety plan. Verify HAZWOPER training.</i>

NOSC Emergency Action Checklist Government Liaison		
Check (X) appropriate actions when completed		
Initial Assessment		Gather basic spill information to be able to brief impacted/interested state and local organizations.
		* Can the area be safely approached?
		* What are the health concerns?
		* What are the potential environmental impacts?
		* What are the potential property/ economic impacts?
		* Can the source of the spill be secured?
		* Is response equipment on scene or enroute?
Notifications		Notify anticipated impacted/interested parties.
Communication		Establish effective lines of communication with impacted/interested parties. Consider:
		* Regularly scheduled meetings/briefing.
		* Periodic (i.e. twice daily) reports.
		* Routine updates by phone.
		* Advise local officials of method of communication with Unified Command
Briefings		Brief the following individuals on liaison actions/issues:
		* NOSC, Deputy NOSC, PAO, Legal and Safety, Planning Section Chief and Unit Leaders, as applicable.
		* Provide PAO with a list of local contacts
		* Assist PAO in escorting VIPs, DVs and local officials to spill site, if required

<i>NOSC Emergency Action Checklist Legal Officer</i>		
<i>Check (X) appropriate actions when completed</i>		
<i>Initial Assessment</i>		<i>Gather basic spill information to identify/anticipate legal issues that may arise.</i>
<i>Notifications</i>		<i>Notify local/regional Navy JAG and Admiralty Law of anticipated legal issues.</i>
<i>Additional Resources</i>		<i>Determine initial need for additional legal support. Consider establishing a Claims Unit Leader under Finance to receive claims as they come in.</i>
<i>Legal Advice</i>		<i>Provide NOSC, PAO, Safety Officer and Section Chiefs legal advice relative to spill cleanup, media relations, contracts and claims.</i>
<i>NRDA</i>		<i>Monitor NRDA actions and report key developments to NOSC, Planning Section Chief and Legal Chain of Command.</i>

16 Nov 00

Recommended Actions During Emergency Phase Checklist for: <u>Operations Section</u>		
Check (X) recommended actions as accomplished.		
Notify Key Section Members		Assign Rescue & Salvage Branch Leader
		Assign Spill Cleanup Branch Leader
		Planning Section Chief
		Logistics Section Chief
Assess Situation		Obtain as much information as possible from on-scene personnel and develop initial estimates for manpower, equipment, and material needs.
		Determine status of spill control and containment actions.
		Identify safety officer and ensure health and safety of on-scene personnel is being addressed.
		Update spill volume estimate (How was it determined? Soundings, tank level indicator, based on pumping time, guess, etc.).
		Update spill trajectory projections, using any of the following: * Tide and current information/predictions; * Overflight information; * Other observations of spill movement.
		Develop initial estimate of environmental impact/damage.
		Establish communications with Federal On-Scene Coordinator representative and discuss: * Initial assessment information, * Response actions underway and planned actions.

Recommended Actions During Emergency Phase Checklist for: <u>Operations Section</u> (cont.)		
Assess Situation (cont.)		Mobilize/request additional response resources as needed: * Salvage and Rescue, * Firefighting, * HAZMAT
		Ensure establishment of forward command/communication center, if appropriate.
		Provide situation report to NOSC; include needs/recommendations for mobilization of additional resources, such as: * BOA contractors; * SUPSALV; * USCG Strike Teams, etc.
Brief Operations Section		Communicate with other Section Chiefs to pass on requests for support, and obtain additional information from other sections, as needed.
		Establish objectives for Operations Section and select appropriate strategies.
		Brief branch leaders and make specific assignments.
		Prepare and post Operations Section organizational chart
		Provide weather forecast.
		Instruct branch leaders to review response methods and sensitive area information identified in the applicable Area Contingency Plan and/or Facility Response Plan.
		Instruct branch leaders to observe the Health & Safety Plan.

16 Nov 00

<i>Recommended Actions During Emergency Phase</i> <i>Checklist for: <u>Planning Section Chief</u></i>		
<i>Check (X) recommended actions as accomplished.</i>		
<i>Notify key section members</i>		<i>Plan Development Unit Leader</i>
		<i>Document Unit Leader</i>
		<i>Environmental Unit Leader</i>
<i>Attend briefing</i>		<i>Get as much information as possible about the characteristics of the spill and trajectory.</i>
		<i>Start an information log and continue to record information/status as the incident develops.</i>
		<i>Ascertain specific planning and environmental requirements.</i>
<i>Notify technical specialists</i>	<i>The following notifications should be made to provide a "heads up" for technical specialists who may be needed to assist the planning section as the incident develops. Specialists should have expertise in the following areas:</i> * <i>sampling and monitoring;</i> * <i>trajectory analysis;</i> * <i>oil spill modeling;</i> * <i>location of sensitive areas and resources; and</i> * <i>special response resources.</i>	
		<i>CNRSW Deputy IC</i>
		<i>CNRSW Operations Section Chief</i>
		<i>Region IX Scientific Support Coordinator</i>

<i>Recommended Actions During Emergency Phase Checklist for: <u>Planning Section Chief</u> (cont.)</i>		
<i>Brief planning section</i>		<i>Update unit leaders on situation and make specific assignments.</i>
		<i>Prepare and post Planning Section organizational chart.</i>
		<i>Establish information requirements and reporting schedules.</i>
<i>Consider alternative response methods</i>		<i>Determine if in situ burning is viable. Consult with SSC to determine environmental feasibility. Contact Federal and State OSCs.</i>
		<i>Determine if the use of bioremediation is viable. Consult with SSC to determine environmental feasibility. Contact Federal and State OSCs.</i>
		<i>Determine if the use of dispersants is viable. Consult with SSC to determine environmental feasibility. Contact Federal and State OSCs.</i>
<i>Develop Incident Action Plan</i>		<i>The following resources should be available to identify protection strategies, sensitive areas, and available resources when developing the incident action plan.</i>
		<i>* Local Navy facility response plan</i>
		<i>* Area Contingency Plan</i>
		<i>* NOSC plan</i>
		<i>* Various state plans which identify economically and environmentally sensitive areas (e.g. ESI maps)</i>
		<i>Coordinate development of Incident Action Plan with Operations Section Chief by obtaining information on operations performed during the emergency phase of the incident.</i>
<i>Identify special permitting arrangements</i>		<i>Ensure all information on spill incident is collected, analyzed, evaluated, and disseminated to the appropriate response parties as the plan is developed.</i>
		<i>Advise NOSC on all environmental issues relating to response operations.</i>
		<i>Supervise the compilation of environmental information necessary to obtain regulatory agency approvals.</i>
		<i>Document all regulatory agency contacts and report them to NOSC.</i>

16 Nov 00

Recommended Actions During Emergency Phase Checklist for: <u>Logistics Section</u>		
Check (X) recommended actions as accomplished.		
Notify key section members		Communications Unit Leader
		Assign Support Services Unit Leader
		Assign Facilities Unit Leader
		Assign Medical Unit Leader
		Assign Transportation Unit Leader
		Assign Supply Unit Leader
Assess situation		Get as much information as possible. Start an information log and continue to record information/status as the incident develops. Ascertain specific health and safety requirements (i.e. some workers/equipment operators may require HAZWOPER training before they will be allowed to participate in the clean up operation).
Brief Logistics Section		Brief unit leaders and make specific assignments.
		Prepare and post Logistics Section organizational chart.
		Prepare and post resource tracking charts.

Recommended Actions During Emergency Phase Checklist for: <u>Logistics Section</u> (cont.)		
Brief unit leaders		Instruct unit leaders to review resources identified in the NOSC Plan.
		Instruct unit leaders to review resources identified in the Area Contingency Plan.
		Identify necessary staging areas.
		Identify potential requirements for BOA contractors, if they are activated.
		Brief unit leaders on the importance of documenting all requirements, contacts, and resourcing arrangements. A good paper trail will facilitate prompt answers to follow-up inquiries.
Track the following information		Identify and track; equipment, personnel, services, etc. <ul style="list-style-type: none"> * Mode of shipment. * Location and date of intermediate stops. * Date due at final destination. * Location of final destination. * Accurate and up-to-date information on the type, quantity, and availability of equipment and materials. * The condition (new, reconditioned, or used) of equipment and materials. * The terms and conditions of the purchase, lease, or rental of equipment and materials. * Whether additional equipment or materials are necessary to make requested equipment fully operational. * The availability of technicians to explain or maintain equipment. * The availability of spare parts.

16 Nov 00

Recommended Actions During Emergency Phase Checklist for: <u>Logistics Section</u> (cont.)		
Identify special resources as required		<i>Evacuation vessels.</i>
		<i>Communications equipment.</i>
		<i>Berthing and/or housing arrangements.</i>
		<i>Food and potable water.</i>
		<i>Sanitary facilities.</i>
		<i>Fuel for mobile equipment.</i>
		<i>Waste handling and temporary storage.</i>
		<i>Security services.</i>
Identify team members to perform the following tasks		<i>Ensure that an overall inventory is maintained for all equipment materials purchased, rented, borrowed, or otherwise obtained during the response operations.</i>
		<i>Ensure that programs are in place to inspect and service equipment; obtain and store spare parts; and repair or replace damaged equipment.</i>

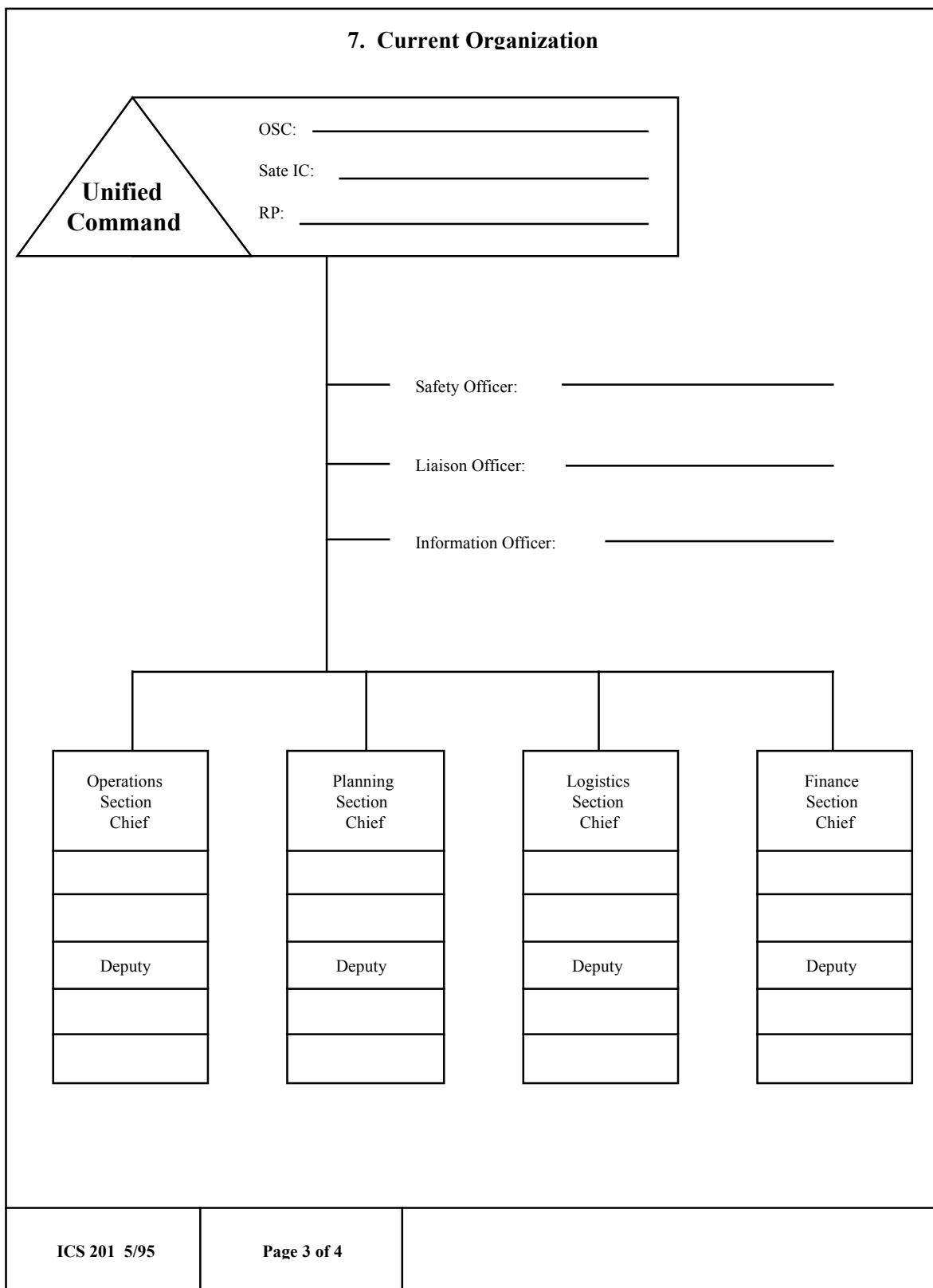
Recommended Actions During Emergency Phase Checklist for: <u>Finance Section</u>		
Check (X) recommended actions as accomplished.		
Notify key section members		Assign Claims Unit Leader
		Assign Accounting Unit Leader
		Assign Contracting Unit Leader
Attend briefing		Get as much information as possible. Start an information log and continue to record information/status as the incident develops. Ascertain specific finance requirements.
Brief Finance Section		Brief unit leaders and make specific assignments.
		Prepare and post Finance Section organizational chart.
		Prepare and post funding and obligations tracking charts.
Brief unit leaders		Instruct unit leaders to review financial procedures identified in the NOSC Plan.
		Instruct unit leaders to review financial procedures identified in the Area Contingency Plan.
		Identify necessary initial funding limitation.
		Instruct unit leaders to maintain cumulative cost/financial records.
		Brief unit leaders on the importance of documenting all requirements, contacts, and resourcing arrangements. A good paper trail will facilitate prompt answers to follow-up inquiries.

Recommended Actions During Emergency Phase Checklist for: <u>Finance Section</u> (cont.)		
Track the following information		Track the following information regarding services, equipment, personnel, etc. requested * Date funded. * Date funds committed. * Date obligation incurred.
		* Information on the type and quantity of equipment and materials funded. * The financial terms and conditions of the purchase, lease, or rental of equipment and materials. * Dates when payments are due.
Start initial efforts to identify any special financial arrangements		Potential TYCOM financial liability if incident exceeds local activity mission funding levels.
		Potential Fleet Commander financial liability if incident exceeds TYCOM funding availability.
		Potential reimbursement of local, state, or federal agencies.
Identify team members to perform the following tasks		Ensure that an overall accounting is maintained for all equipment materials purchased, rented, borrowed, or otherwise obtained during the response operations.
		Ensure that programs are in place to document actual use of materials and manpower by contractor personnel.
		Coordinate the NOSC's claims and compensation personnel to establish a system for the receipt, evaluation, and processing of all claims against the government.
		Develop and administer cash accounts as required.
		Identify and obtain technical experts to assist in identifying damage assessment costs.
		Function as internal auditor to ensure proper documentation of all expenditures.

INCIDENT BRIEFING	1. Incident Name:	2. Date Prepared:	3. Time Prepared:
<p style="text-align: center;">4. MAP/SKETCH</p> <p>(Could include maps showing the total Area of Operations, the incident site, overflight results, trajectories, impacted shorelines, or other graphics depicting situation and response status.)</p>			
ICS 201 6/95	Page 1 of 4	5. Prepared By (Name and Position):	

[illegible]

7. Current Organization



[illegible]

RESPONSE OBJECTIVES	1. Incident Name:	2. Date Prepared:	3. Time Prepared:
4. Operational Period (Date/Time):			
5. Overall Incident Objective(s):			
6. Objectives for specified Operational Period:			
7. Safety message for specified Operational Period:			
8. Weather: See Attached Weather Sheet.			
9. Tides / Currents: See Attached Tide / Current Data.			
10. Sunrise:		Sunset:	
11. Attachments (✓ if attached):			
<input type="checkbox"/> Organizational List (ICS 203)	<input type="checkbox"/> Medical Plans (ICS 206)	<input type="checkbox"/> Resources at Risk Summary (ICS 212(oil))	
<input type="checkbox"/> Assignment List (ICS 204)	<input type="checkbox"/> Incident Map(s)	<input type="checkbox"/>	
<input type="checkbox"/> Communications Plan (ICS 205)	<input type="checkbox"/> Traffic Plan (ICS 205)	<input type="checkbox"/>	
ICS 202 6/95	12. Prepared By: (Planning Section Chief)		

16 Nov 00

1. Branch:	2. Division/Group:	ASSIGNMENT LIST							
3. Incident Name:			4. Operational Period: (Date/Time)						
5. Operations Personnel: <div style="margin-left: 150px;"> Operations Section Chief: _____ Branch Director: _____ Division/Group Supervisor: _____ </div>									
Strike Team/ Task Force/ Resource Identified	Leader	Phone #	No. of Persons	Trans. Needed	Drop Off Point/ Time	Pick Up Point/ Time			
7. Assignments:									
8. Special Instructions / Safety Message:									
9. Division/Group/Communications Summary									
Function		Freq.	System	Chan.	Function		Freq.	System	Chan.
Command	Local				Support	Local			
	Repeat					Repeat			
Div./Group/Unit Tactical					Ground-To-Air				
10. Prepared By: (Resource Unit Leader)				11. Approved By: (Planning Section Chief)			Date/Time Approved		
ICS 204 6/95									

INCIDENT RADIO COMMUNICATIONS PLAN		1. Incident Name:	2. Date/Time Prepared:	3. Operational Period (Date/Time):	
4. Basic Radio Channel Utilization					
SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS
ICS 205 6/95	5. Prepared by: (Communications Unit)				

16 Nov 00

MEDICAL PLAN	1. Incident Name:	2. Date Prepared:	3. Time Prepared:	4. Operational Period:				
5. INCIDENT MEDICAL AID STATIONS:								
MEDICAL AID STATIONS	LOCATIONS			Paramedics				
				YES	NO			
6. TRANSPORTATION:								
A. AMBULANCE SERVICES								
MEDICAL AID STATIONS	LOCATIONS		PHONE	Paramedics				
				YES	NO			
B. INCIDENT AMBULANCES								
NAME	LOCATIONS			Paramedics				
				YES	NO			
7. HOSPITALS:								
NAME	ADDRESS	TRAVEL TIME		PHONE	Helipad		Burn Center	
		AIR	GRND		YES	NO	YES	NO
8. MEDICAL EMERGENCY PROCEDURES:								
ICS 206 6/95	9. Prepare By: (Medical Unit Leader)			10. Reviewed By: (Safety Officer)				

DAILY MEETING SCHEDULE		1. Incident Name:	2. Date Prepared:	3. Time Prepared:
4. Operational Period (Date/Time):				
Time	Meeting Name	Purpose / Attendees	Meeting Location	
ICS 208 (oil) 6/95		5. Prepared By: (Situation Unit Leader)		

MEETING DESCRIPTION		1. Incident Name:	
2. Meeting Name:			
3. Meeting Date:		4. Meeting Time:	
5. Meeting Place:			
6. Facilitator:			
7. Who Should Attend:			
8. Agenda Outline:			
ICS 208A (oil) 6/95		9. Prepared By:	

RESOURCES AT RISK SUMMARY		1. Incident Name:	2. Date Prepared:	3. Time Prepared:
----------------------------------	--	-------------------	-------------------	-------------------

4. Environmentally Sensitive Areas and Wildlife Issues:

#	Priority	Site	Location and Description

Narrative:

5. Archaeo-cultural and Socio-economic Issues:

#	Priority	Site	Location and Description

Narrative:

ICS 212 (oil) 6/95	6. Prepared By: (Situation Unit Leader)
--------------------	---

UNIT LOG		1. Incident Name:		2. Date Prepared:		3. Time Prepared:		
4. Unit Name/Designators:			5. Unit Leader (Name and Position):			6. Operational Period:		
PERSONNEL ROSTER ASSIGNED								
NAME			ICS POSITION			HOME BASE		
8. ACTIVITY LOG (CONTINUE ON REVERSE):								
TIME		MAJOR EVENTS						
ICS 214 5/95		9. Prepared by:						

UNIT LOG (continued)		1. Incident Name:	2. Date Prepared:	3. Time Prepared:
TIME	MAJOR EVENTS			
ICS 214 (cont) 6/95		Page ____	Prepared by:	

16 Nov 00

AIR OPERATIONS SUMMARY		1. Incident Name:		2. Operational Period (Date & Time):		3. Distribution: Helibases _____ Fixed Wing Bases _____			
4. PERSONNEL AND COMMUNICATIONS						5. REMARKS (Spec. Instructions, Safety Notes, Hazards, Priorities)			
		Name	Air/ Air Frequency	Air/Ground Frequency					
Air Operations Director		_____	_____	_____					
Air Tactical Supervisor		_____	_____	_____					
Air Support Supervisor		_____	_____	_____					
Helicopter Coordinator		_____	_____	_____					
Fixed-Wing Coordinator		_____	_____	_____					
6. Location/ Function	7. Assignment	8. Fixed Wing		9. Helicopters		10. Time		11. Aircraft Assigned	12. Operating Base
		No.	Type	No.	Type	Available	Commence		
ICS 220 6/95		13. Air Operation Support Equipment:				14. Prepared By (Include Date & Time):			

EXECUTIVE SUMMARY	1. Incident Name:	2. Date Prepared:	3. Time Prepared:
4. Operational Period (Date/Time):			
5. Planning:			
6. Operations:			
7. Environmental:			
8. Other:			
ICS Exec. Sum. 6/95	12. Prepared By: (Planning Section Chief)		

GENERAL PLAN				Incident Name:											
Prepared by:				Date Prepared:				Time Prepared:				Operational Period (Date/Time) From: To:			
1. Notification															
2. Response Initiation															
3. Site Characterization, Forecasts, and Analysis															
4. Site Safety															
5. Site Security															
6. Source Stabilization, Salvage, and Lightering															
7. Surveillance															
8. On Water Containment and Recovery															
9. Sensitive Areas/Resources at Risk															
10. Alternative Response Technology															
11. Shoreline Protection and Recovery															
12. Wildlife Protection and Recovery															
13. Logistics Support															
14. Response Organization															
15. Communications															
16. Public Information															
17. Financial Management and Cost Documentation															
18. NRDA and Claims															
19. Training															
20. Information Management															
21. Restoration/Management															
22. Waste Management															
23. Demobilization															

INCIDENT ACTION PLAN

Incident Name: _____

Incident Number(s): _____

Date Plan Prepared: _____

Operational Period Covered by This Plan:

Date: Start _____ Finish _____

Time: Start _____ Finish _____

Approved By:

Federal: _____

State: _____

RP(s): _____

E-34

Appendix F

INTER-AGENCY AGREEMENTS AND GEOGRAPHIC BOUNDARIES

F.1 EPA - COAST GUARD GEOGRAPHIC BOUNDARY

The EPA Region IX Oil & Hazardous Materials Plan delineates the Coast Guard and EPA OSC's boundaries along the California coast as: "Beginning at the [Mexican] International border and the sea, east and north along the eastern limits of the Border Field State Park to the mouth of the Tijuana River; across the river's mouth to the eastern limit of the Silver Strand State Beach to Palm Ave.; east to I-5; north to Harbor Drive; north to Scott St.; south to Talbot St.; west to Hill St.; west to Sunset Cliffs Blvd.; north to I-8; east on I-8 to I-5; north to Grand Ave.; west to Mission Blvd.; north to La Jolla Blvd.; north to Prospect St.; north to Torrey Pines Rd.; north along Torrey Pines Rd. to Route S21 (North Torrey Pines Rd.); S21 north to I-5 (Oceanside); north on I-5 to Pacific Coast Highway (Route 1); Route 1 north to Jamboree Road (Newport Beach); north to Bristol St.; west to Irvine Ave.; south to 17th St.; west to Route 55; south to Route 1; Route 1 north to Golden West St. (Huntington Beach); north to Warner Ave.; west to Bolsa Chica; north to Westminster Ave. This line then extends west along Westminster Blvd. and begins right before the intersection with the Pacific Coast Highway (Route 1); north to 7th St.; north and west to Ximeno Ave.; south to Livingston Dr.; west to Ocean Blvd.; west along Ocean Blvd. to the intersection with Los Angeles River's east bank; north along Los Angeles River east bank to Anaheim St.; west to Alameda St.; south to 22nd St.; west to Pacific Ave.; south to Paseo Del Mar; north on Western Ave.; west and north to 25th St.; 25th St./Palos Verdes Dr. around Palos Verdes Peninsula to Route 1; north to Beryl St. (Redondo Beach); west to Harbor Dr.; north along the coast roads through the beach cities to Culver Blvd. (Playa del Rey); north to Route 1; along Route 1 to Hueneme Rd. (Oxnard); west to Ventura Rd.; north to Channel Islands Blvd.; west to Harbor Blvd.; north to US 101; north along US 101 to Route 225 (Santa Barbara); Route 225 west to US 101; north along US 101 to Gaviota. Within Gaviota State Park shift to Southern Pacific railroad tracks; along the mainline tracks to Black Rd. (Casmalia); north to Route 1; north along Route 1 to Hwy 35 (near San Francisco); west on Hwy 35 to the Great Hwy; north on the Great Hwy to the intersection with Point Lobos Ave.; Point Lobos Ave. east to Geary Blvd.; Geary Blvd. east to Laguna St.; Laguna St. south to Bay St.; Bay St. east to intersection with State Belt railroad tracks; State Belt railroad tracks south along the Embarcadero to Third St.; Third St. south to Hwy 101; Hwy 101 south to Hwy 237; Hwy 237 east to intersection with Souther Pacific railroad tracks; Southern Pacific railroad tracks north to intersection with Hwy 880 (approximately 1/2 mile south of 89th Ave. exit); Hwy 880 north to intersection with Souther Pacific Railroad tracks near Albany; Souther Pacific railroad tracks north and east until intersection with Hwy 4 (approximately 2 miles east of Antioch); Hwy 4 east to I-5 at Stockton; I-5 north to Hwy 80; Hwy 80 west to Hwy 113; Hwy 113 south to Hwy 12; Hwy 12 west to Hwy 80; Hwy 80 west to Hwy 680; Hwy 680 south to Hwy 780; Hwy 780 west to Hwy 80; Hwy 80 west to Hwy 29; hwy 29 north to Hwy 37; Hwy 37 west to Hwy 101 near Ignacio; Hwy 101 south to Hwy 1 at Marin City; Hwy 1 north to Usal Rd. near Rockport; north on Usal Rd. to Chemise Mountain Rd.; north on Chemise Mountain Rd. to Shelter Cove Rd.; west on Shelter Cove Rd. to Kings Peak Rd.; north on Kings Peak Rd. to Wilder Ridge Rd.;

16 Nov 00

north on Wilder Ridge Rd. to Mattole Rd.; north and west on Mattole Rd. to Hwy 1 at Ferndale; north on Hwy 1 to Hwy 101 at Fernbridge; north on Hwy 101 to Front St.; west on Front St. to A St.; north on A St. to Sixth St.; west on Sixth to Pebble Beach Dr.; north on Pebble Beach Dr. to Washington Blvd.; east on Washington to Lake Earl Dr.; north on Lake Earl Dr. to Hwy 101; north on Hwy 101 to the California-Oregon border.

F.2 NAVY - COAST GUARD INTERAGENCY AGREEMENT

See next page and following.

INTERAGENCY AGREEMENT (IAA) BETWEEN THE UNITED STATES NAVY AND THE
UNITED STATES COAST GUARD FOR COOPERATION IN OIL SPILL CLEAN-UP
OPERATIONS AND SALVAGE OPERATIONS

- I. PURPOSE: To specify for U.S. Coast Guard and U.S. Navy application:
- A. Conditions and procedures under which the U. S. Coast Guard can request and the U.S. Navy viii provide oil spill clean-up and/or salvage equipment and services to support the U.S. Coast Guard in non-Navy oil spills and other operations requiring salvage expertise.
 - B. Conditions and procedures under which the U.S. Navy can request and the U.S. Coast Guard will provide equipment and services to support the U.S. Navy in salvage operations and in response to oil spills which are caused by facilities or vessels under Navy jurisdiction.
 - C. Reimbursement procedures and policies.
- II. BACKGROUD: The National Oil and Hazardous Substances Pollution Contingency Plan, promulgated under the authority of the Federal Water Pollution Control Act, (PWPCA) (33 USC 1251, et. seq.) confers on the Coast Guard (or the Environmental Protection Agency in designated areas) responsibility for designating Federal On-Scene Coordinators (OSC) to coordinate Federal agency resources in cleaning up any oil or hazardous substance discharged in U.S. navigable waters, the contiguous zone or waters beyond the contiguous zone up to approximately 200 Riles. In addition to having the responsibility and expertise to respond promptly in cases of discharges from Navy operated or supervised ships and facilities, the Navy is also the governmental agency possessing expertise in ship salvage and salvage-related operations. The OSC, may access this expertise for the cleanup and control of any oil spill. The Coast Guard may also access the Navy's salvage expertise to assist during other operations conducted by the Coast Guard. Alternatively, the Navy may CccC85 the Coast Guard's expertise in oil spill control and other assets for salvage operations.
- III. RESOURCES: Under the terms of this Agreement, the following resources may be provided:
- A. When requested by the U.S. Coast Guard pursuant to Section V herein, the U.S. Navy will furnish to the U.S. Coast Guard the following resources consistent with availability and operational commitments as determined by the Navy:
 - (1) salvage equipment and specialized oil spill control and clean-up equipment.
 - (2) Salvage, diving and oil spill control consultation, evaluation, planning and operational services.
 - (3) Naval Craft, vessels and aircraft.
 - B. When requested by the U.S. Navy pursuant to Section VI herein the U.S. Coast Guard will furnish to the U.S. Navy the following resources consistent with availability and operational commitments as determined by the Coast Guard.

- (1) Oil spill consultation, evaluations, planning and operational services
- (2) Specialized oil spill control and clean-up equipment.
- (3) Coast Guard craft, vessels and aircraft.

IV. FEDERAL ORGANIZATION AND RESPONSIBILITIES: U.S. Navy response to U.S. Coast Guard Federal on Scene Coordinator (OSC) requests for services and equipment in non-Navy oil spills will be provided in accordance with the National Contingency Plan (Part 1510, Chapter V, Title 40 CFR) and the terms of this IAA.

The Coast Guard OSC will coordinate and direct Federal oil spill control and cleanup efforts in the event of an incident in his area of responsibility. In the event that commercial resources and/or expertise are not available to carry out the required cleanup, the OSC will arrange for the use of Federal and/or State resources. Unless prearrangements have been made, the OSC will seek the assistance of the Regional Response Team in accessing the needed advice and/or resources.

U.S. Navy salvage operations, conducted in support of other Coast Guard activities, will be coordinated by the Coast Guard On-Scene Commander or Coast Guard Officer-In-Charge of the operation¹ subject to the operational and technical control of the Navy Salvage Officer.

V. COAST GUARD REQUESTS FOR NAVY ASSISTANCE:

A. When local or regional interagency contingency plans contain adequate provision for identification, deployment of, and reimbursement for locally available Navy pollution control assets, OSC requests for such assets will be made through the Navy or DOD member of the RRT. The Navy (or DOD) member will have prearranged with the Navy Area Coordinator and the cognizant Navy supplier activity commander for authority to commit these resources to the OSC with the utmost expediency. It shall be the responsibility of the OSC to follow up such a request with a confirming message to the supplier activity and Navy Area Coordinator referencing the request and citing pertinent operational and funding information. Requests forwarded by OSCs shall include the following information:

- (1) Circumstances of the spill, e.g., location¹ quantity and
- (2) Extent of assistance required.

B. When adequate local activity assets are not available, or difficulties arise in arranging for their deployment and cannot be resolved on the RRT level, the matter shall be referred to the National Response Team (NRT) for resolution. Requests forwarded by RRTs shall include the information called for in V.A. above.

- (1) The Coast Guard MRR representative or National Response Center (DINIC) Duty Officer will relay all requests for assistance from the OSC/RRT to the Chief of Naval Operations Navy Department Duty Captain (OP-641/642) for action. (24 hour telephone: 202-695-0231). Such referrals will specify the above mentioned information relating to the conditions and circumstances of the oil spill.

- (2) All Coast Guard telephonic requests for assistance referred to in paragraph (1) will be followed promptly by a documenting message from the Coast Guard. This message will reference and detail the initial OSC request and must include accounting data identification for reimbursement to the Navy of the costs identified in Section VIZ! of this Agreement. The message shall be addressed to CHO, Washington, D.C.. Attn: OP-64/45/23/37, to CHNAVMAT, Washington, D.C. Attn: KLT-044i to CONNAVSEASYSK. Washington, D.C.. Attn: MAVSEA-OOC; to COMNAV7ACGCQM Alexandria, VA: to CINCLANTFLT, Norfolk, VA., or CINCPACFLT, Pearl Harbor, HI., (as appropriate), and to Commandant, U.S. Coast Guard and the NRC (as appropriate). The Navy will properly document increases in the protected cost of its assistance and will so inform the OSC by message referencing the Coast Guard's message.
- C. If NAVSEASYSCON assistance is anticipated, OSCs may prior to formal tasking, directly communicate with NAVSEASYSCOM at 202-697-7403 (normal workday), other times 202-692-7527 for technical matters.
- D. In oil spill related cases where it becomes necessary to assist the Coast Guard by mobilizing Navy forces other than Navy pollution control assets, the Coast Guard representative to the NRT or the Coast Guard NRC Duty Officer will relay requests received from the Coast Guard OSC via the R~ to the Navy Department Duty Captain (op-641/642) outlining the specific circumstances of the request. Each request for such assistance will contain the information set forth in paragraph V.A. of this Agreement.
- E. For purposes of this Agreement items are to be considered under the administrative control of the OSC from the time they are delivered for his use, whether such delivery is made at the scene of the incident or to a representative of the OSC at a location other than at the scene, through the time the item is redelivered to the Navy or its representative.
- F. All Coast Guard requests for salvage assistance in other Coast Guard operations will be relayed by the appropriate Coast Guard Headquarters authority to the Navy Department Duty Captain. The requests shall include information similar to that called for in V.A. of this Agreement.

VI. NAVY REQUESTS FOR COAST GUARD ASSISTANCE

- A. Coast Guard resources will be provided, subject to their availability, to assist Naval Activities in responding to pollution discharges caused by facilities or vessels under Navy jurisdiction. Requests for such assistance shall be relayed by the Navy representative to the NRT or to the National Response Center. Reimbursement will be made in accordance with the guidelines established in Section VIII of this Agreement.
- B. Coast Guard resources will be provided, subject to their availability, to assist the Navy during salvage operations. Requests for such assistance shall be relayed by the cognizant Navy Commander to the Coast Guard Commander Atlantic Area (Aom) for resources located on the Atlantic and Gulf Coasts, and to Commander Pacific Area (Pam) for resources located on the Pacific Coast. Reimbursement will be made in accordance with the guidelines established in Section VIII of this Agreement.

- C. For purposes of this Agreement items are to be considered under the administrative control of the Navy from the time they are delivered to the location and/or representative specified by the Navy, through the time the item is redelivered to the Coast Guard or its representative.

VII. LOCAL ARRANGEMENTS FOR ASSISTANCE:

Coast Guard OSC's and local Naval commands, having oil spill cleanup capabilities, are encouraged to enter into agreements for the utilization of those capabilities to respond immediately to discharges of oil occurring within, or in threatening proximity of, the waters of a U.S. Naval base or facility regardless of whether the Navy is responsible for the discharge. Wherever such agreements are reached, the Coast Guard will reimburse the Navy for Navy costs incurred in undertaking such actions as per Section VIII of this Agreement, unless it is subsequently determined that the Navy was responsible for discharge.

VIII. REIMBURSEMENT PROCEDURES AND POLICIES:

- A. The Federal On-Scene Coordinator is responsible for insuring that proper cost documentation records are maintained.
- B. Navy and Coast Guard activities providing advice and assistance are responsible for providing OSCS with supporting documentation for cost accounting.
- C. Navy and Coast Guard activities providing assistance in support of the cleanup operation as requested by an OSC are entitled to reimbursement for the following items:
 - (1) Travel, per diem, and overtime costs for personnel.
 - (2) Rental costs, as approved by the parent agency, for nonexpendable equipment provided.
 - (3) Replacement costs for expendable materials provided and utilized
 - (4) Replacement or repair costs for nonexpendable equipment which is damaged while under the administrative control of the OSC.
 - (5) Transportation costs incurred in delivering items to and from the scene.
 - (6) Incremental operating and contract costs incurred as a result of providing assistance to OSCs.
- D. Normal salary costs of government employees in positions that are not normally intended to provide services in support of response operations are reimbursable. Salaries of reserve personnel called on active duty specifically to assist in a Federal response activity are reimbursable.
- E. The fiscal agent for the U.S. Coast Guard will be the Comptroller of the cognizant Coast Guard District.

- F. The fiscal agent for the U.S. Navy under Section V. A. of this Agreement will be the local activity Commanding Officer, and under V. B. will be the Commander, Naval Sea Systems Command (NAVSEA-O1), Washington. D.C. 20362.
- G. Subject to the Coast Guard's ultimate collection responsibility for services and operations provided by the Navy under this agreement, NAVSEA-01 or the local activity, depending on the applicability of V.A. or V.3., shall be responsible for making collections from the Coast Guard and shall make Appropriate disbursements of transfer of funds within the respective Navy organizations.
- H. Paragraphs A through G above apply only to the reimbursement of costs to the Navy in connection with FWPCA response actions. Paragraphs E and F apply to all reimbursements covered by this Agreement. Normal accounting procedures (interagency transfers) apply (1) to reimbursements not related to FWPCA response actions, and (2) to reimbursements to the Coast Guard for the use of their equipment and services in a FWPCA response action conducted by the Navy.
- IX. NOTIFICATION: The terms of this Agreement, amplified as necessary to provide detailed guidance and procedures for reimbursement, will be promulgated to components of the Coast Guard and the Navy.

Approved: J.P. Stewart
J.P. STEWART
Chief of Staff

8-13-80
Date

Approved: W. J. Cowhill
W. J. COWHILL
Vice Admiral, U. S. Navy
Deputy Chief of Naval
Operations (Logistics)

9/15/80
Date

Appendix G

Oil Spill Reporting Procedures

G.1 GENERAL REQUIREMENTS

A. All Reportable Quantity (RQ) discharges will be promptly reported by the activity causing the discharge or the first activity discovering the incident. Initial voice reports must be made immediately and shall not be delayed while determining responsibility. The National Response Center (NRC) considers "immediately" as within 15 minutes.

B. The Facility Incident Commander (FIC), formerly assigned as NOSCDR, shall ensure that appropriate reporting is conducted. If a responsible activity cannot be identified or is unable to conduct the necessary reporting, the supporting FIC shall make the reports.

C. Reportable Quantity (RQ) - Oil discharges include oil of any kind, including but not limited to petroleum, fuel oil, sludge, oil refuse, and refined products.

(1) In Water. All navy-generated oil discharges to the bay and coastal water of the U.S. (out to 24 NM) or with the potential to reach the water shall be immediately reported, regardless of quantity. Also, any unknown discharge that causes a sheen, sludge, or emulsion shall be reported when discovered.

(2) On Land. Spills that pose a threat to safety and health or threaten to enter the water shall be reported. Also, any discharge greater than 42 gallons that is outside an established containment area, or greater than 100 gallons inside a containment area, shall be reported.

NOTE: Any variations must be in accordance with previously approved contingency plans.

D. When in doubt, report it!

NOTE: Any activity with the potential to be a reporting party which does not have the expertise to properly prepare the reports directed in this message may contact the CNRSW NOSC for additional guidance or training on message requirements. Lack of message preparation experience does not relieve an activity from responsibility for drafting and submitting reports. Additionally, Port Operations (619) 556-3136/1433 can provide assistance.

G.1.1 INITIAL VOICE REPORTS

In order to ensure an effective response, collect valid data, and maintain Navy credibility, it's essential that spill reports be as accurate and complete as possible. Initial reports must be timely, yet avoid speculation which may impact follow-on incident response and review. Key elements that are required to support Navy response goals are below.

16 Nov 00

G.1.1.1 INITIAL VOICE REPORT PROCEDURES

The early phase of an oil pollution incident is critical to effective containment and minimizing potential environmental impacts. Initial voice reports must be timely, and contain as much pertinent information as possible, so supporting response teams can deploy sufficient assets. ***Time, location, product, quantity, if known, and any immediate threat to health and safety, and/or natural resources.*** If the quantity cannot be accurately determined initially, do not assign an exact volume but rather a good faith estimate, with a qualifying statement. Example: ***“Volume has not yet been determined, but is estimated to be over 50 gallons. Will provide more complete volume information when known.”*** Report on the high side, it's much better to overestimate than to underestimate, as more response is preferred to not enough, and downsizing a report is more credible than significantly underreporting. Ensure all required notifications as outlined below are made. When aware of a significant difference in what was initially reported, update the NRC, State, and NOSC, as a minimum.

A. Within San Diego Bay:

The activity causing the discharge or the first activity discovering the incident, will report as follows:

(1) In Water.

- NAVBASE San Diego Central Oil Recovery (COR): (619) 556-8006.
- NRC: (800) 424-8802.
- Coast Guard Marine Safety Office (MSO) San Diego: (619) 683-6505.
- CA Office of Emergency Services (CAL-OES): (800) 852-7550

(2) On Land.

- Federal Fire Dept: (on-base tel exchange 9-911); (off-base tel exchange 911)
- NRC: (800) 424-8802
- CAL-OES: (800) 852-7550
- CNRSW NOSC: (619) 524-2314

B. California - Outside SD Bay out to 24 NM, or in a Non-Navy port:

(1) In Water.

- NRC: (800) 424-8802
- CAL-OES: (800) 852-7550
- NAVBASE San Diego Central Oil Recovery (COR): (619) 556-8006.

(a) If inport/vicinity of Los Angeles/Long Beach, Santa Barbara, Santa Catalina:
MSO LA/LB: (562) 980-4445.

(b) If inport/vicinity Monterey, Santa Cruz, San Francisco Bay, Crescent City, Eureka: MSO San Francisco: (510) 437-3073.

(2) On Land.

- (On-Base) Local notifications IAW host emergency response plans. (Off-Base) Call tel exchange 911.
- NRC: (800) 424-8802
- CAL OES: (800) 852-7550
- CNRSW NOSC: (619) 524-2314

C. Nevada:

- (On-Base): immediate response team as directed in local plan. (Off-Base) Call tel exchange 911.
- NRC: (800) 424-8802
- Nevada Dept of Conservation and Management: (800) 852-7550
- CNRSW NOSC: (619) 524-2314.

D. Arizona:

- (On-Base): immediate response team as directed in local plan. (Off-Base) Call tel exchange 911.
- NRC: (800) 424-8802
- Arizona Dept of Emergency Management: (520) 628-5478
- CNRSW NOSC: (619) 524-2314

G.1.2 FOLLOW-UP MESSAGE REPORTS

The Oil Spill Report Message is intended to advise the NOSC and other Navy leadership of an incident, as well as provide accurate data for follow-on root cause analysis and prevention initiatives. If the NRC has been notified, and/or State and local authorities, it is particularly important that the message is sent. The initial follow-up report is to be submitted within 24 hours, utilizing the best available information. As with initial voice reports it is important to make the message as accurate as possible, while avoiding speculation as to the source, volume, operation underway, and cause of the spill. Submit an OIL SPILL REPORT SITREP when more accurate information is known, particularly if the final estimate of the amount discharged is significantly higher. When assessing volume discharged, examine loss at the source through tank soundings or flow rate calculations, contact supporting response personnel on quantity recovered, and consult with on-scene experts, i.e. Coast Guard investigators for an accurate estimate.

Sheen Sightings

Responsible environmental stewardship and maritime tradition require that commanding officers report to proper authorities any oil on the water's surface discovered in the course of daily operations—whether at sea or in port—whether attributable to Navy sources or not. Accordingly, commanding officers shall submit voice and Navy message reports to appropriate Federal, State, local and military authorities for any oil sheen discovered by naval personnel—even if the cause or

16 Nov 00

source of the spill is unknown. Such reports, however, should *not speculate as to cause or source* and *clearly indicate that a Responsible Party cannot be identified* from information then currently available.

A. Oil Spill Report (OPNAV 5090-2). The activity responsible as owner or operator of the facility or process causing the spill shall prepare and submit the naval message oil spill report IAW format contained ref a. If the source is unknown, the activity making the initial notifications will submit the oil spill report.

B. This applies to all Reportable Quantity (RQ) oil discharges as defined in Chapter 1, including eligible land-based oil spills, that do not impact or threaten to impact navigable waters. Include the following addressees as a minimum:

FM SPILLER/DISCOVERER
 TO COMNAVREG SW SAN DIEGO CA//N3P/N3P1/N45//
 OPERATIONAL COMMANDER
 INFO CNO WASHINGTON DC//N45//
 CINCPACFLT PEARL HARBOR HI//01/N4/N43/N46/N465//
 TYCOM/CLAIMANT
 COMNAVSEASYS COM WASHINGTON DC//00C25/03L34//
 NFESC PORT HUENEME CA//424MA//
 HOST ACTIVITY
 COGARD NATIONAL RESPONSE CENTER WASHINGTON DC//GOFP//
 NAVPETOFF ALEXANDRIA VA//JJJ//
AND AS APPROPRIATE:
 (INPORT/VICINITY SAN DIEGO) COGARD MSO SAN DIEGO CA;
 (INPORT/VICINITY LA/LONG BEACH, SANTA BARBARA, SANTA CATALINA)
 COGARD MSO LALB LONG BEACH CA;
 (INPORT/VICINITY MONTEREY, SANTA CRUZ, SAN FRANCISCO BAY,
 CRESCENT CITY, EUREKA) COGARD MSO SAN FRANCISCO BAY CA.
 (INLAND SPILLS) EPA REGION NINE SAN FRANCISCO CA//JJJ//

G.1.3 AFTER ACTION REPORTS

For vessel spills impacting the water, the responding shore activity shall submit an After Action Report in accordance with format contained reference (c). For land and land generated spills impacting the water, the responsible discharging activity shall submit the After Action Report.

G.1.4 ISIC INQUIRY

To maintain accountability, the ISIC of the activity responsible for an OHS spill is required to commence an investigation into all incidences within 72 hours. The investigation

must be completed within 30 days of the incident and report any disciplinary action taken where appropriate.

COMNAVREGSWINST 5090.1C
16 Nov 00

This page intentionally left blank.

Appendix H

Hazardous Substance Reporting Procedures

H.1 GENERAL REQUIREMENTS

A. All Reportable Quantity (RQ) discharges will be promptly reported by the activity causing the discharge or the first activity discovering the incident. Initial voice reports must be made immediately and shall not be delayed while determining responsibility. The National Response Center (NRC) considers "immediately" as within 15 minutes.

B. The Facility Incident Commander (FIC), formerly assigned as NOSCDR in reference (c), shall ensure that appropriate reporting is conducted. If a responsible activity cannot be identified or is unable to conduct the necessary reporting, the supporting FIC shall make the reports.

C. Reportable Quantity (RQ). When determined that an HS release is of a quantity that meets or exceeds the criteria listed in Appendix M of this instruction or 40 CFR part 302, or which poses a threat to Public health or safety, it is considered an RQ. The RQ must be reported to the National Response Center (NRC), appropriate State Office of Emergency Services, and local agencies as required. Quantities are the same for spills on land or in water. If a responsible activity cannot be identified or cannot conduct the necessary reporting in a timely manner, the supporting FIC shall make required reports. This applies to all RQ releases.

D. Although sewage/CHT, "gray water", and AFFF are not listed as standard reportable hazardous substances, inappropriate discharges of these items may present a potential negative impact on health and safety, the environment, and the Navy's public image. Accordingly, discharges of these substances must be reported to the appropriate Navy environmental office.

E. When in doubt, report it!

NOTE: Any activity with the potential to be a reporting party which does not have the expertise to properly prepare the reports directed in this message may contact the CNRSW NOSC for additional guidance or training on message requirements. Lack of message preparation experience does not relieve an activity from responsibility for drafting and submitting reports. Additionally, Port Operations (619) 556-3136/1433 can provide assistance.

H.2 INITIAL VOICE REPORTS

A. Within San Diego Bay:

The activity causing the discharge or the first activity discovering the incident, will report as follows:

16 Nov 00

(1) In Water.

- NAVBASE San Diego Central Oil Recovery (COR): (619) 556-8006
- NRC: (800) 424-8802
- Coast Guard Marine Safety Office (MSO) San Diego: (619) 683-6505
- CA Office of Emergency Services (CAL-OES): (800) 852-7550

(2) On Land.

- Federal Fire Dept: (on-base tel exchange 9-911); (off-base tel exchange 911)
- NRC: (800) 424-8802
- CAL-OES: (800) 852-7550
- CNRSW NOSC: (619) 524-2314

B. California - Outside SD Bay out to 12 NM, or in a Non-Navy port:

(1) In Water.

- NRC: (800) 424-8802
- CAL-OES: (800) 852-7550
- NAVBASE San Diego Central Oil Recovery (COR): (619) 556-8006

(a) If inport/vicinity of Los Angeles/Long Beach, Santa Barbara, Santa Catalina: MSO LA/LB: (562) 980-4445.

(b) If inport/vicinity Monterey, Santa Cruz, San Francisco Bay, Crescent City, Eureka: MSO San Francisco: (510) 437-3073

(2) On Land.

- (On-Base) Local notifications IAW host emergency response plans. (Off-Base) Call tel exchange 911

- NRC: (800) 424-8802
- CAL OES: (800) 852-7550
- COMNAVREG SW NOSC: (619) 524-2314

(c) Nevada:

- (On-Base): immediate response team as directed in local plan. (Off-Base) Call tel exchange 911

- NRC: (800) 424-8802
- Nevada Dept of Conservation and Management: (800) 852-7550
- CNRSW NOSC: (619) 524-2314

(d) Arizona:

- (On-Base): immediate response team as directed in local plan. (Off-Base) Call tel exchange 911.
- NRC: (800) 424-8802
- Arizona Dept of Emergency Management: (520) 628-5478
- CNRSW NOSC: (619) 524-2314

(e) Sewage/CHT, "GRAY WATER", AND AFFF, all other DISCHARGES:

- CNRSW NOSC: (619) 524-2314

H.3 FOLLOW-UP MESSAGE REPORTS

A. HS Release Report (OPNAV 5090-3). The activity responsible as owner or operator of the facility or process causing the release that meets criteria established in para 4.c shall prepare and submit the following-on HS release report within 24 hours, IAW the format of Ref A, appendix I. If a responsible activity cannot be identified or is unable to conduct the necessary reporting, the supporting FIC shall make required reports. Report sewage/CHT and "gray water" discharges via unit SITREP or IAW other applicable Fleet/TYCOM directives. For HS release report include the following addressees as a minimum:

FM ORIGINATOR

TO COMNAVREG SW SAN DIEGO CA//N2/N45//
(ADD N3P FOR SPILLS IN THE WATER)
OPERATIONAL COMMANDER

INFO CNO WASHINGTON DC//N45/CINCPACFLT PEARL HARBOR HI//01/N4/N46//
TYCOM
NFESC PORT HUENEME CA//424MA//
HOST ACTIVITY
COMNAVSEASYS COM WASHINGTON DC//00C25//
COGARD NATIONAL RESPONSE CENTER WASHINGTON DC//GOF//
(AND AS APPROPRIATE):
EPA REGION NINE SAN FRANCISCO CA//JJJ// (INLAND SPILLS);
COGARD MSO SAN DIEGO CA (INPORT/VICINITY SAN DIEGO);
COGARD MSO LALB LONG BEACH CA (INPORT/VICINITY LA/LONG BEACH,
SANTA BARBARA, SANTA CATALINA);
COGARD MSO SAN FRANCISCO BAY CA (INPORT/VICINITY MONTEREY,
SANTA CRUZ, SAN FRANCISCO BAY, CRESCENT CITY, EUREKA)

H.4 AFTER ACTION REPORTS

For vessel spills impacting the water, the responding shore activity shall submit an After Action Report IAW format contained in reference (a). For land and land generated spills impacting the water, the responsible discharging activity shall submit the After Action Report.

Appendix I

SITE SAFETY PLAN

I.1 SITE-SPECIFIC SAFETY PLAN

The safety and health of response personnel and the public is the top priority in any OHS pollution incident. To support that, a site-specific safety plan must be developed for every incident, whether it is a standing plan where recurrent operations of a like nature are conducted, or an initial verbal plan followed as soon as possible by the approved format plan contained in Appendix F-Incident Command Forms.

All operations OHS emergency response operations will be conducted in accordance with 29 CFR 1910.120. Any person not having sufficient training and supporting qualifications shall not be allowed to participate in direct response operations.

This section on health and safety provides a general frame work for protecting oil spill response workers and complying with the requirements of state and federal laws. These requirements need to be addressed in advance of actual operations, whenever possible, and incorporated into SOPs and training.

The information contained in this section is intended to be used as guide by the Safety Officer for preparing and implementing worker health and safety protection measures that will maximize safety and allow OHS emergency response activities to proceed. Specific site control and emergency response procedures will need to be developed using forms provided in this outline or other forms developed by the activity. Activities using other procedures, such as confined space entry or hot work, will require additional controls to fulfill regulatory requirements. These and other health and safety and regulatory matters must be identified and managed by the Safety Officer, or the Navy On-scene Incident Commander (NOSIC), if no Safety Officer is assigned.

In the event of a large scale incident where the Regional Area Contingency Plan and Spill Management Team are activated, the initial Site Safety Plan will be developed under standard Navy procedures and then transition to ACP management requirements.

I.2 MEDICAL MONITORING

All persons who will be exposed or will have the potential to be exposed to hazardous substances shall take part in a medical monitoring program that meets the requirements of 29 CFR 1910.120(f). In general, medical monitoring will be conducted for those who:

- have the potential to be exposed to hazardous substances at or above the PEL
- are believed to have been exposed to hazardous substances or who exhibit symptoms of exposure.

I.3 RECORDS AND REPORTS

Both state and federal regulations require employers to prepare and maintain records of occupational injuries and illnesses. Sections will maintain records for assigned response personnel.

I.4 HEALTH HAZARDS

Health hazards must be identified in the site-specific safety plan. The following is a list of typical hazards that need to be addressed during an oil spill response. A similar list should be developed for hazardous substances stored at facilities. Due to the limited number of petroleum products utilized by the Navy, common health hazards can be readily determined and incorporated as part of the standard training curriculum. The primary petroleum products utilized by the Navy:

Table I-1 PERMISSIBLE EXPOSURE LIMITS OF PRODUCTS STORED OR USED BY THE NAVY		
	TWA (Time Weighted Average)	STEL (Short Term Exposure Limit)
Lube oil (xxxxxx)	XX ppm	XX ppm
JP-5 (jet fuel)	10 ppm	15 ppm
	100 ppm	--
DFO (diesel)	500 ppm	--
MOGAS (unleaded gasoline)	300 ppm	500 ppm
ASA-3 (anti-static compound)	100 ppm	--

JP-5 (jet fuel)

JP-5 is a mixture of light hydrocarbons and naphthalene. Naphthalene is a potential irritant to eyes, skin and lungs, and it may cause changes to the blood, eyes, and kidneys after prolonged or repeated exposure. Aspiration of this product into the lungs can cause chemical pneumonia and can be fatal.**Diesel Fuel Marine (DFM) F-76**

Aspiration of liquid into the lungs may cause extensive pulmonary edema (dry land drowning). Prolonged or repeated skin contact will remove skin oils leading to irritation and/or dermatitis. High vapor concentrations are irritating to the eyes and lungs, and may cause headaches, dizziness, and unconsciousness.

MOGAS - Gasoline (unleaded)

Gasoline is a mixture of hydrocarbons, including aliphatic hydrocarbons, aromatic hydrocarbons, a variety of branched and unsaturated hydrocarbons, and additives. Extremely high levels of exposure could produce conditions such as dizziness, coma, collapse, and death. Exposure to non-lethal doses is usually followed by complete recovery, although cases of permanent brain damage following massive exposure have been reported.

TABLE I-2 INITIAL SITE ASSESSMENT FORM [to be completed by the Initial Incident Commander prior to initiating immediate response]		
DATE	DD MM YY	
Initial Incident Commander		
1. Wind Direction	Toward Your Position 9	Away From Your Position 9
2. Are people injured/endangered?	9 YES	9 NO
3. Are non-Navy persons observing the incident?	9 YES	9 NO
4. Are persons involved in rescue attempts?	9 YES	9 NO
5. Are there any signs of potential hazards from:	Electrical lines down or overhead	9 YES 9 NO
	Unidentified liquids or solids	9 YES 9 NO
	Visible vapors	9 YES 9 NO
	Unusual smells or odors	9 YES 9 NO
	Fire or sparks from nearby ignition sources	9 YES 9 NO
	Holes, caverns, deep ditches, fast moving water, or cliffs nearby	9 YES 9 NO
	Local vehicular or pedestrian traffic	9 YES 9 NO
	Warning/color-coded placards, or danger signs	9 YES 9 NO
	Is the ground dry	9 YES 9 NO
	Is the ground wet	9 YES 9 NO
	Is the ground icy	9 YES 9 NO
	Other	
6. Make an initial assessment of the flammability of vapors and the level of oxygen present	% LEL : % O₂ :	
7. Approach the spill site from the upwind side and observe any change in the status of any of the above items	Item Number	Change Observed
8. Is the incident scene secure	9 YES	9 NO
9. Is there a need for the additional support or equipment:	Security	
	Personal Protective Equipment	
	Hazardous Materials Technician/Specialists [identification/monitoring/source control]	
	Sites for Command Center & Decontamination Station	
	Equipment needed to control spill	
	Other	

16 Nov 00

TABLE I-3 INITIAL SITE SAFETY PLAN DATE: [MM/DD/YY]		
1. REVIEW THE INITIAL SITE ASSESSMENT FORM		COMPLETED 9
2. MAP (sketch) OF SITE W/Present Wind Direction and at Least Two Major Landmarks Completed 9		
3. Identification of all potentially harmful substances at scene ¹		
SUBSTANCE	CONTAINER	SECURED
		9 YES 9 NO
		9 YES 9 NO
		9 YES 9 NO
4. Personal Protective Equipment required ¹		
Respiratory Protection Required	9 YES 9 NO If yes, type of respiratory protection:	
Protective clothing required	9 YES 9 NO If yes, describe the type and level of protection in detail:	
5. Establish a monitoring system ¹	Describe monitor program (including instruments to be used)	
6. Is a vehicle involved?	9 YES 9 NO	
Drivers Name: _____ Drivers's License Number: _____ Vehicle Number: _____ Tractor/trailer Number: _____ Rail Car Number: _____ Cargo tank Number (Tank Truck): _____ Ship Name & Number: _____ Placard(s): _____ Other Hazard Identification Information:		
7. General Information		
Carrier Name: _____ Telephone Number: _____ Manufacturer of Substance: _____ Telephone Number: _____ Point of Origin (Shipper): _____ Destination (Consignee): _____		
8. Determine degree of decontamination required and designate a decontamination area ¹		
9. Establish an isolation zone and notify area residents if necessary (e.g., threat of fire or explosion)		
10. Begin control, containment, cleanup, decontamination, and disposal process		

¹ Items to be completed by a qualified Hazmat Technician or Specialist

I.5 NAVY SAFETY AND HEALTH PROGRAM

Each Navy activity must develop and implement a written safety and health program for all Navy response personnel. This program is designed to identify, evaluate, and control safety and health hazards, and to provide for emergency response during oil and hazardous substance spill response operations. The written safety and health program includes the following:

- The Navy response organization;
- A generic safety and health plan;
- The Navy training program; and
- A description of the Navy medical surveillance program.

The Navy written safety and health program should be made available to any contractor or subcontractor (or their representative) who will be involved in spill response operations; to Navy employees; to Navy employee designated representative; to OSHA personnel; and to personnel of other Federal, State or local agencies with regulatory authority over the spill response.

I.6 SITE-SPECIFIC SAFETY PLAN

The site specific safety and health plan must address the safety and health hazards of each phase of the response operation, including the requirements and procedures for employee protection. The site safety and health plan should include the following:

- A safety and health risk and/or hazard analysis for each response task and operation. The risk/hazard analysis will include the following:
 - Location and approximate size of the response area;
 - Description and duration of the response activities to be performed;
 - Site topography and accessibility by air and roads;
 - Safety and health hazards expected to be encountered;
 - Exposure routes of expected contaminants and other risks such as potential skin absorption and irritation, potential eye irritation, and concentrations that are immediately dangerous to life and health (IDLH);
 - Present status and capabilities of emergency response teams that would provide assistance to response personnel in the event of an emergency;
 - Health hazards involved or expected from contaminants present and their chemical and physical properties.
- Appropriate Personnel Protective Equipment (PPE) shall be used by employees during each of the response operations. The requirement for personal protective equipment will be based on the results of the preliminary site evaluation and the guidance provided in the Navy written safety and health program.

16 Nov 00

- Employee training requirements to assure compliance with the OSHA requirements. The training program section of the Navy written safety and health program should be used as guidance for preparation of this section.
- Medical surveillance requirements to ensure compliance with the OSHA requirements. The medical surveillance program section of the Navy written safety and health program should be used as guidance for preparation of this section.
- A schedule and the types of air monitoring to be conducted for IDLH conditions, combustible gases, and other conditions that may cause death or serious harm.
- Maintenance and calibration procedures for monitoring and sampling equipment to be used.
- A schedule and the types of environmental sampling techniques and instruments to be used.
- A site control program for protecting employees involved in response operations. The site control program will include a site map, an indication of the work zone, a description of the “buddy” system, site communications, emergency alert signals, standard operating procedures of safe work practices, and identification of the nearest medical assistance.
- Standard operating procedures that minimize personnel and equipment contact with spill substances.
- Decontamination procedures that cover all phases of response operations. These procedures must be communicated to all response personnel and implemented before any response employees or equipment enter areas where they can potentially be exposed.
- An emergency response plan that is a separate section of the safety and health plan that covers:
 - Pre-emergency planning, personnel roles, lines of authority, and communication;
 - Emergency recognition and prevention, safe distances, and places of refuge;
 - Site security and control, evacuation routes and procedures;
 - Decontamination procedures (those not covered by the site specific safety and health plan);
 - Emergency medical treatment and first aid;
 - Emergency alerting and response procedures;
 - Personal protective equipment and emergency equipment;
 - Response area topography, layout, and prevailing weather conditions;
 - Procedures for reporting incident to local, state, and Federal governmental agencies;
 - A section covering the critique of a response and follow-up.
- Confined space entry procedures
- A procedure for handling, labeling, and transporting drums and containers of recovered oil and oil contaminated debris.

I.7 SAFETY BRIEFING

The site specific safety plan must provide for daily safety briefings that will be conducted prior to the start of each event or work day. The briefings will cover safety and health items that have changed or new information that has been obtained. These briefings will ensure that all response personnel have received information concerning updates of the safety and health plan.

I.8 AUDITS

The Safety Officer and the Operations Section division/branch supervisors shall conduct safety and health audits. The audits will be used to determine the effectiveness of the site-specific safety and health plan and to determine if additional procedures are needed to protect response personnel.

I.9 GENERIC SITE SAFETY PLAN

The following section contains a generic site safety plan that should be used by the Safety Officer in preparing the site specific safety plan.

GENERIC SITE SAFETY PLANNING FOR OIL SPILLS

References:

- (a) *29 CFR 1910.120* OSHA regulations for Hazardous Waste Sites
- (b) *40 CFR 311* Worker Protection
- (c) NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH 85-115)

A. SPILL SITE DESCRIPTION FORM

See next page.

16 Nov 00

SPILL SITE DESCRIPTION FORM

Location: _____

Hazards: Oil: _____

Treatment chemicals: _____

General safety hazards: _____

Surrounding population: _____ industrial, _____ residential, _____ rural,
_____ unpopulated, _____ other: _____

Topography: _____ rocky, _____ sandy beach, _____ docks, _____ cliffs,
_____ marshes, _____ other: _____

Weather related hazards: _____ heat stress, _____ hypothermia, _____ frostbite,
_____ severe storms

Additional information:

B. ENTRY OBJECTIVES

Entry objectives may include oil recovery, booming, shoreline clean-up, and related activities. Detailed objectives shall be developed daily, and shall be described during the pre-entry safety briefing.

C. SITE CONTROL

1. Anyone entering or departing a WORK AREA, or associated control zones, shall report to the designated RECORDER for that location. Entry is conditional, based on approval of the SITE SUPERVISOR. The SITE SECURITY OFFICER shall enforce this policy at all times.
2. No person shall enter a site without subscribing to this or another approved Site Safety and Health Plan.
3. No person shall enter a site without adequate training in hazardous waste operations safety and health based on work assignment and applicable hazardous conditions.
4. Site Boundaries.
 - a. EXCLUSION ZONE(S): That part of the work area where oil recovery is taking place, shall be treated as an EXCLUSION ZONE. Only properly outfitted and trained personnel (wearing appropriate protective clothing) shall be allowed in exclusion zones.
 - b. CONTAMINATION REDUCTION ZONE(S): Contamination reduction zones shall be established at those parts of work areas used for cleaning and storage of oily clothing and equipment. These zones shall allow for personnel to wash their hands and faces, and change into street clothing before leaving the site or consuming food and beverages.
 - c. SUPPORT ZONE(S): Related uncontaminated field locations, such as command posts, equipment staging/storage, and eating areas. The SUPPORT ZONES(S) shall be maintained as clean as practicable by observing decontamination procedures.
 - d. The above zones shall be marked as needed to control traffic and enforce decontamination procedures. Appropriate placards, barricades, traffic cones, and/or boundary tape shall be used for this purpose. The SITE SAFETY OFFICER shall periodically inspect work areas to ensure the effectiveness of boundaries. The following color coding applies:
 - (1) orange, red, or black and yellow for EXCLUSION ZONES
 - (2) yellow for CONTAMINATION REDUCTION ZONES, and
 - (3) green for SUPPORT ZONES.

16 Nov 00

5. A site map shall be developed and modified as necessary for each sector, and attached to the applicable Site Safety and Health Plan, by the SITE RECORDER and SITE SAFETY OFFICER. The map shall include items such as (but not limited to) the following:

a. Exclusion Zone

b. Contamination Reduction Zone

- the decontamination layout
- equipment storage
- temporary waste storage areas
- washing, toilets and hygiene facilities

c. Support Zone

- first aid stations
- emergency fire fighting equipment
- command posts/office spaces
- new equipment staging/storage
- eating/rest areas
- bird/mammal cleaning and rehabilitation

d. Location of Identified Hazards

- underground cables
- overhead cables
- pits, trenches, open holes/hatches
- wasted deck plate
- hearing protection areas
- hard hat areas
- suspected locations of poisonous plants, insects, or animals
- high pressure wash areas
- bioremediation application areas
- dispersant application areas

D. HAZARD EVALUATION

1. Potentially hazardous chemical substances/mixtures.

- a. Oil: crude, gasoline, military JP-4, commercial JET B, aviation gasoline, gas oils.

- (1) Composed of an indefinite petroleum distillate mixture. The content typically includes benzene, toluene, xylene, naphthalene, and Polyaromatic Hydrocarbons (PAHs). The concentration of these products will vary

widely depending on the source of the oil, weathering, and aging.

- (2) **HAZARD DESCRIPTION:** May cause dermatitis by skin contact; nausea by inhalation; and eye irritation by contact. Benzene is a hematologic toxin (it affects the blood and blood forming organs), and is a carcinogen. The greatest potential hazard is in poorly ventilated areas (such as pits or under docks), or around freshly spilled oil. Benzo(a)pyrene is a skin contact hazard and may potentially cause skin cancer with chronic skin contact. As oil weathers and ages, benzo(a)pyrene becomes more concentrated because it evaporates much more slowly than other chemical in the mixture.
- (3) **BASIC PRECAUTIONS:** Stay away from or upwind of, fresh oil spills; wear chemical resistant clothing as necessary to protect against skin or eye contact; periodically change protective clothing that has oil on it; immediately change clothing that is showing evidence of oil penetrating to your skin; and wash skin with soap and water when changing into street clothing, before eating/drinking, or when exiting to a contamination reduction zone. Flush eyes with water if oils gets in them. If ingested do not induce vomiting--contact a physician. Urine phenol should be tested as soon as possible (and not later than 72 hours after exposure) if there is a suspected overexposure to benzene. Urine specific gravity should be corrected to 1.024 for this test. If urine phenol values exceed 75 mg per liter, further testing in accordance with *29 CFR 1910.1028(1)(4)* may be needed, and individuals must be removed from areas of potential benzene exposure until values return to normal.

b. Oil: kerosene, diesel, military JP-5, commercial JET A.

- (1) Composed of an indefinite petroleum distillate content typically including Polyaromatic Hydrocarbons (PAHs). The concentration of these products will vary widely depending on the source of the oil, weathering, and aging.
- (2) **HAZARD DESCRIPTION:** May cause dermatitis by skin contact; nausea by inhalation; and eye irritation by contact. Benzo(a)pyrene is a skin contact hazard and may potentially cause skin cancer with chronic skin contact.
- (3) **BASIC PRECAUTIONS:** Wear chemical resistant clothing as necessary to protect against skin or eye contact; periodically change protective clothing that has oil on it; immediately change clothing that is showing evidence of oil penetrating to your skin; and wash skin with soap and water when changing into street clothing, before eating/drinking, or when exiting to a contamination reduction zone. Flush eyes with water if oil gets in them. If ingested do not induce vomiting--contact a physician.

16 Nov 00

- c. Bioremediation application. See attached MSDS information when these products are in use.
 - d. Dispersant applications. See attached MSDS information when these products are in use
2. Additional hazards may be encountered on site and shall (along with any other applicable hazards found during the site survey) be marked on the attached project maps. See also the attached listing of generic health hazard information.

_____ slippery rocks
 _____ dangerous working surfaces (e.g., wasted deck plating or rotting wood floors)
 _____ difficult access/egress between vessels and docks
 _____ drowning
 _____ heat stress _____ hypothermia _____ cold stress _____
 _____ UV sunlight (eyes/skin)
 _____ noise hazards
 _____ ticks _____ snakes _____ bees _____ yellow jackets _____
 _____ poison ivy _____ oak _____ sumac _____
 _____ overhead/buried electrical cables.
 _____ open manholes _____ pits _____ trenches _____ hatches _____
 _____ falling objects
 _____ carbon monoxide from vehicle exhaust
 _____ fire and explosion hazards

E. CONTROLS

The following controls shall be observed on site.

1. FIRES. Each restriction zone and associated contamination reduction zone shall have at least one each of the following:

- a fully charged Class A fire extinguisher for ordinary fires;
- a fully charged Class B fire extinguisher for liquid fires; and
- a hand held fog horn to alert personnel.

The above items shall be maintained in a readily accessible location, clearly labeled in red, and with the locations noted on the project map.

2. SLIPPERY ROCKS AND SURFACES. All personnel in the work area shall wear rubber safety boots with steel toe/shank and textured bottoms. Boat crews may substitute clean deck shoes with textured soles (free of oil on cloth/leather uppers, and no oil observable inside the shoes)
3. LIGHTING. Portable lighting shall be provided for dark areas or work after sunset.

4. WORK NEAR WATER. All personnel working in boats, on docks, or generally within 10 feet of water deeper than 3 feet, shall wear Coast Guard approved personal flotation devices (PFDs).
5. HEAT STRESS. The SITE SAFETY OFFICER shall make heat stress determinations throughout the day. If it is determined that a heat stress hazard exists, an alert shall be passed to all teams to implement mandatory rest periods. The SITE SAFETY OFFICER shall generally be guided by the American Conference of Governmental Industrial Hygienists (ACGH) guidelines in determining work/rest periods. Fluids shall be available at all times and encouraged during rest periods. (See attached information sheet on heat related health effects.)
6. COLD STRESS. Workers shall be provided with adequate warm clothing. The SITE SAFETY OFFICER shall make cold stress determinations throughout the day when temperatures fall below 50 degrees F.
 - a. If a cold stress hazard exists, an alert shall be passed to all teams to implement mandatory rest/warm-up periods. The SITE SAFETY OFFICER shall generally be guided by the American Conference of Governmental Industrial Hygienists
 - b. For prolonged cold weather operations, warming shelters shall be provided for rest periods. Warm fluids (such as soups, cocoa, cider, or sweetened--low caffeine--hot teas) shall also be available during rest periods. Drinking coffee should not be encouraged.
 - c. For prolonged water temperatures below 59 degrees F, or a combined water and air temperature less than 100 degrees F, exposure suits shall be worn by personnel working/traveling in small boats or aircraft over water.
7. HIGH NOISE LEVELS. Hearing protection shall be used in high noise areas (exceeding 84 dBA, or designated by the Site Safety Officer). Locations likely to exceed this level include the vicinity of vacuum trucks and heavy equipment; bird hazing stations; and generally where noise levels require personnel to raise their voices to be heard.
8. POISONOUS INSECTS (e.g., mosquitoes and ticks). All personnel shall be provided with long sleeved clothing and insect repellent in designated areas.
9. POISONOUS SNAKES. All personnel working in designated areas shall wear snake proof leggings or hip high rubber boots.
10. POISONOUS PLANTS (e.g., poison ivy, oak, and sumac). Long sleeved clothing shall be worn in areas designated to contain these plants. Areas known to contain these plants shall be marked/posted to extent possible at the site. Emergency medical personnel shall prescribe first aid treatments to be carried in these areas.

16 Nov 00

11. **ELECTRICAL HAZARDS.** Electrical power lines (buried or overhead) shall be marked on applicable project maps, and physically marked in the field as necessary.
12. **TRAP HAZARDS.** Opens manholes, pits, trenches, or similar hazards shall be noted on project maps, and marked with placarded barricades. The SITE RECORDER shall ensure that these locations are periodically checked during the day, and additionally in the event that entering personnel are not accounted for at the end of a shift.
13. **CARBON MONOXIDE.** Vehicle/equipment operators shall ensure that personnel are not allowed to linger or work near exhaust pipes or sources of carbon monoxide.
14. **FALLING OBJECTS.** Hard hat areas determined by site survey shall be noted on project maps.
15. **UV LIGHT EXPOSURE.** Sunscreens of protection factor 15 (or greater), and UV tinted safety glasses shall be made available for response personnel as needed to prevent overexposure to UV light.
15. **BUDDY SYSTEM.** The buddy system shall be observed inside the Work Area (EXCLUSION and CONTAMINATION REDUCTION ZONES). Personnel must work within sight of their assigned partner at all times. A partner shall be assigned by the RECORDER as personnel check in. Personnel shall use whistles to indicate that they need assistance in areas where personnel may be obscured for supervisors (e.g. high grass, boulders, or warehouse areas) as noted on the Project Map.
17. **PERSONAL PROTECTIVE REQUIREMENT (PPE).** The following PPE ensembles shall be used while on site. If designated "as needed" the equipment does not need to be worn unless the item is needed to keep oil off of clothing and skin. The SITE SAFETY OFFICER may modify ensembles on a case-by-case basis as approved by the Sector/Site Supervisor.

LOCATION	JOB FUNCTION	LEVEL
Work Area	Bioremediation crews	C1
	High pressure wash crews	C2
	Sampling crews	C3
	Dispersant crews	D
	All others	D
Contamination Reduction Zone	All personnel	D
Support Zone	All personnel	Street clothing

18. **SANITATION AND POTABLE WATER**

- a. Potable water. An adequate supply of potable water or other drinking fluids shall be maintained at all times throughout the site. Containers for drinking fluids shall be capable of being tightly closed, and shall be equipped with a tap. These containers must also be labeled in such a manner that the contents are not accidentally used for other purposes. Where single service cups are supplied, the unused cups shall be maintained in sanitary containers, and a separate disposal container shall be provided for used cups.
- b. Non-potable water. Water intended for uses other than drinking or washing shall be identified in such a way that it is not accidentally used for drinking, washing, or cooking. There shall be no cross-connection of potable and non-potable water supplies.
- c. Toilet facilities. Toilet facilities shall be provided at a minimum in accordance with Table H-120.2 (toilet Facilities) of *29 CFR 1910.120 (n)*.
 - (1) 20 or fewer people: 1 facility
20-200 people: 1 toilet seat, and
1 urinal per 40 persons
More than 200 people: 1 toilet seat, and
1 urinal per 50 persons
 - (2) Toilets shall be provided such that they are readily accessible to all work areas. Mobile work crews with ready access to toilet facilities using their own transportation do not need to have toilet facilities located at their temporary work sites.
 - (3) Sewage shall be handled in accordance with local health codes using one of the following means:
 - sanitary sewer,
 - chemical toilets,
 - recirculating toilets,
 - combustion toilets, or
 - flush toilets.
- d. Food handling shall be conducted in accordance with the requirements of local jurisdiction.
- e. Washing Facilities. Washing facilities shall be readily accessible to all employees. In addition to sanitary cleaning, these facilities shall be equipped to remove oily residues from the skin. Washing facilities shall be maintained free of contaminants above exposure limits, and as free as practicable from oily residues.
- f. Showers. For oil spill operations lasting more than 6 months, showers and changing rooms must be provided in accordance with *29 CFR 1910.120(n)(7)*; and *29 CFR 1910.141 (d)(3)* and *1910.141(e)*.

16 Nov 00

F. COMMUNICATIONS

1. General signals:
 - a. A whistle shall be treated as a need for assistance.
 - b. Repeated short blasts from a hand held fog horn shall be used to indicate a fire emergency.
2. VHF Channel _____ has been designated as the working frequency for all sectors.
3. VHF Channel _____ is designated for site emergencies.
4. Cellular phone number of Command Post: _____
5. Cellular phone number Site Safety Officer: _____
6. Other cellular phone numbers:
7. Medical Assistance:
Nearest Medical Facility (attach map):
Phone:
Location:
Phone for Ambulance: 911
8. Phone Police/Sheriff: 911
9. Phone for Fire Dept: 911

G. DECONTAMINATION PROCEDURES

1. Personnel with contaminated clothing and equipment shall leave the Work Area by following the prescribed decontamination procedures below:
 - a. Wipe off oily equipment and PPE clothing with a sorbent pad.
 - b. Inspect PPE clothing for tears or other damage. Inspect the inside of PPE clothing for signs of oil penetration. Discard if damaged or oil penetration is observed.
 - c. Store oily equipment in contaminated equipment storage.
 - d. Store or discard oily PPE clothing in labeled lockers or appropriate containers.
 - e. Discard oily articles in appropriate containers.

- f. Remove, clean, and inspect respirators.
- g. Store cleaned respirators in respirator storage.
- h. Place cloth coveralls in laundry basket or discard if excessively dirty.
- i. Wash face and hands with soap and water.
- j. Change into street clothing.

NOTE: Before dumping DECON water, conduct an analysis to ensure the water is non-hazardous.

2. Equipment for Decontamination:

- decontamination shelter;
- orange, red, yellow, green, and black and yellow tape for zones/hazards;
- plastic or painted metal placards for “Exclusion Zone,” “Contamination Reduction Zone,” “Support Zone,” and blank placards and markers;
- saw horses, wooden stakes, hammers, and nails;
- area for new/clean equipment storage;
- area for new PPE storage
- area for clean cloth coverall storage;
- hangers for oily PPE clothing;
- lockable storage for street clothing;
- waterless soap;
- soapy water for respirators (when applicable);
- sterilization solution for respirators;
- clean plastic bags for respirator storage;
- towels;
- sorbent pads;
- lined bins for oily debris;
- trash cans and trash bags for other debris/garbage
- kiddie pools
- scrub brushes.

H. EMERGENCY PROCEDURES

1. Emergency Medical Procedures:

- REMAIN WITH YOUR ASSIGNED BUDDY AT ALL TIMES.
- Use whistle to call for assistance if necessary.
- Do not attempt to move seriously injured personnel--call for an ambulance.
- Report all injuries to your supervisor.

16 Nov 00

2. Emergency Fire Procedures:

- REMAIN WITH YOUR ASSIGNED BUDDY AT ALL TIMES.
- DO NOT attempt to fight fires other than small fires.
- DO NOT take extraordinary measures to fight fires.
- Sound fire signal if fire can not be put out quickly.
- Alert nearby personnel to call fire department.
- Notify supervisor and Site/Sector Recorder.
- All other personnel hearing the Fire Fog Horn signal shall immediately proceed, WITH THEIR ASSIGNED BUDDY, to the designated entry/exit point and SITE/SECTOR RECORDER for role call.
- The Site/Sector Supervisor OR the Fire Department shall ensure that the fire is extinguished or that the Fire Department is called for assistance BEFORE restarting work.

I. SITE SAFETY MEETINGS

Site Safety Meetings shall be held by each Supervisor immediately before a shift or beginning a new work assignment and at the end of each shift. At a minimum these meetings will describe the work to be accomplished, discuss safety procedure changes, and develop “pass-the-word” notes for the Site/Sector Recorder to pass to personnel entering the area.

J. THE SITE SAFETY OFFICER

The Site Safety Officer for this incident is: _____

The responsibilities of the SITE SAFETY OFFICER include (but are not limited to):

- coordinating with the FOSC and the Scientific Support Coordinator on safety and health concerns;
- keeping this plan current; and
- acting as liaison with site safety officers from other organizations.

K. AUTHORIZATIONS

SITE SAFETY OFFICER: _____ DATE: _____

FEDERAL ON SCENE COORDINATOR: _____ DATE: _____

The Site/Sector Recorder maintains an up-to-date, comprehensive organization record. When relieved, the Recorder provides this site organization record/log to the incident’s DOCUMENTATION OFFICER, assists the relief in starting a new organization record, and accounts for all personnel logged into the area. All persons wishing to enter the work area (including the EXCLUSION and CONTAMINATION REDUCTION ZONES) must subscribe to a site safety plan, must be adequately trained in hazardous waste site safety, and must be adequately trained for their work assignment.

16 Nov 00

SITE/SECTOR ORGANIZATION RECORDER SHEET**SITE/SECTOR NAME:**

RECORDERS NAME:

RECORD START DATE/TIME: _____ STOP DATE/TIME: _____

		Time In	Time Out	Time In	Time Out
TITLE	Printed Name				

SUPERVISOR
SITE/SECTOR SAFETY
SECURITY
EMT/FIRST AID
OTHER REPS

FIELD TEAM NAME

SUPERVISOR
MEMBERS:

Use Continuation Sheet if additional room is needed:

16 Nov 00

I.10 PPE ENSEMBLES

LEVEL D ENSEMBLE

- _____ cloth coveralls
 - OPTION: long sleeved coveralls (poison plant areas)
 - OPTION: short sleeved coveralls (heat stress alert)
 - OPTION: street clothing may be worn by supervisory personnel, technicians, specialists, etc. that will not be exposed to liquid oil, or high pressure wash sprays, etc.
- _____ rubber steel toe/shank safety boots with textured bottoms
 - OPTION: hip high rubber boots (e.g., designated snake areas)
 - OPTION: deck shoes with textured soles (e.g. boat operations)
- _____ rubber gloves (as needed)
 - OPTION: leather gloves (if no contact with oil)
- _____ rubber rain pants (as needed)
 - OPTION: disposable if oiling is light
- _____ rubber rain jacket & hood (as needed)
 - OPTION: disposable if oiling is light
- _____ rubber apron (as needed)
 - OPTION: disposable if oiling is light
- _____ PFD (all personnel on or near water)
- _____ quart bottle to carry fluids (during heat stress alerts)
- _____ hearing protection (in noisy areas)
- _____ insect repellent (in designated mosquito/tick areas)
- _____ hard hat (all personnel in designated areas)
- _____ safety glasses (as required by Site Safety Officer)
 - OPTION: with tinted lenses (as required for sunlight)
- _____ sunscreen (as needed for sunlight)
- _____ whistle (in designated areas)

NOTES:

- 1) “AS NEEDED” means to use when and in such a way so as to prevent significant skin contact with oil.
- 2) “RUBBER” means chemical resistant material which prevents oil penetration to the skin or cloth garments underneath.

LEVEL C ENSEMBLE

- _____ all LEVEL D items
- _____ rubber gloves (MANDATORY)
- _____ plastic rain pants (MANDATORY)
- _____ OPTION: disposable if oiling/contamination is light
- _____ plastic rain jacket with hood (MANDATORY)
- _____ OPTION: disposable if oiling/contamination is light
- _____ respiratory protection
- _____ full face respirator
- _____ half mask respirator
- _____ organic vapor cartridge
- _____ dust, fume, mist cartridge
- _____ paint spray combination cartridge
- _____ other: _____
- _____ additional eye/face protection
- _____ goggles
- _____ face shields
- _____ other: _____

NOTE: LEVELS A and B are not anticipated for oil spill response. These levels will be utilized appropriately as directed by the NOSIC.

I.11 GENERAL SIGNS/SYMPTOMS THAT INDICATE POTENTIAL TOXIC EXPOSURES

- sudden weight loss or change in appetite
- unusual fatigue or new sleeping difficulties
- unusual irritability
- skin rashes/allergies/sores
- hearing loss
- vision loss/problem
- changes in sense of smell
- shortness of breath/asthma/cough or sputum production
- chest and/or abdomen pains
- nausea/vomiting/diarrhea/constipation
- weakness/tremors
- headaches/dizziness, or
- personality changes/confusion

I.12 MANIFESTATIONS OF TOXIC EFFECTS TO VARIOUS TARGET ORGANS

TARGET ORGAN: skin

MANIFESTATIONS: dermatitis, chloracne, skin cancer

CHEMICAL/PHYSICAL AGENTS(S): Hydrocarbon solvents, chlorinated hydrocarbons (e.g., PCB), soap, dioxane, alcohols

TARGET ORGAN: respiratory system

MANIFESTATIONS: acute pulmonary edema, pneumonitis, asthma, lung cancer

CHEMICAL/PHYSICAL AGENTS(S): many forms of dusts, fumes, and vapors

TARGET ORGAN: cardiovascular system

MANIFESTATIONS: arrhythmias, angina

CHEMICAL/PHYSICAL AGENTS(S): carbon monoxide, hydrogen sulfide, organophosphates, glues/glue-solvent, temperature extremes

TARGET ORGAN: gastrointestinal system

MANIFESTATIONS: abdominal pain, nausea, vomiting, diarrhea, bloody stools, hepatic necrosis, hepatic cancer, hepatic fibrosis

TARGET ORGAN: genitourinary system

MANIFESTATIONS: chronic renal disease, bladder cancer

CHEMICAL/PHYSICAL AGENTS(S): halogenated hydrocarbons

TARGET ORGAN: nervous system
MANIFESTATIONS: headache, convulsions, coma, peripheral neuropathy
CHEMICAL/PHYSICAL AGENTS(S): carbon monoxide, organophosphates, organic solvents

TARGET ORGAN: auditory system
MANIFESTATIONS: temporary and/or permanent hearing loss/shift
CHEMICAL/PHYSICAL AGENTS(S): loud noise

TARGET ORGAN: ophthalmic system
MANIFESTATIONS: eye irritation, cataracts
CHEMICAL/PHYSICAL AGENTS(S): petroleum products, UV radiation

TARGET ORGAN: hematological system
MANIFESTATIONS: anemia, bleeding disorder, leukemia
CHEMICAL/PHYSICAL AGENTS(S): benzene

I.13 HEAT STRESS INFORMATION FROM NIOSH 86-112 HEALTH

Safety Problems:

Safety problems are common to hot environments as heat tends to promote accidents due to slippery objects from sweaty palms, dizziness, or visual distortions from fogged safety glasses. The frequency of accidents, in general, appears to be higher in hot environments than in more moderate environmental conditions. Working in a hot environment lowers the mental alertness and physical performance of an individual. Increased body temperature and physical discomfort promote irritability and other emotional states which can cause workers to overlook safety procedures or to divert attention from hazardous tasks.

Health Problems:

Excessive exposure to a hot work environment can bring about a variety of heat-induced disorders.

Heat Stroke. Heat stroke is the most serious health problem associated with working in a hot environment. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. A heat stroke victim's skin is hot, usually dry, red or spotted. Body temperature is generally 105 degrees F or higher, and the victim can be mentally confused, delirious, convulsive, or unconscious.

Any person showing symptoms of heat stroke requires immediate hospitalization. First aid including removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body should be administered immediately. Further treatment at a medical facility should include the continuation of the cooling process and the monitoring of complications

16 Nov 00

which often accompany the heat stroke. Early recognition and treatment of heat stroke is the only means of preventing permanent brain damage or death.

Heat Exhaustion. Heat exhaustion includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by losing large amounts of fluid through sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated.

In most cases, treatment involves resting the victim in a cool place and administering plenty of liquids. Victims with mild cases of heat exhaustion generally recover quickly. Those with severe cases may require extended care. There are no known permanent effects.

CAUTION--PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT POTENTIAL HEALTH PROBLEMS.

Heat Cramps. Heat cramps are painful spasms of the muscles that can occur during times of high sweat without an adequate replacement of the body's salt. The drinking of large quantities of water tends to dilute the body's fluids, while the body continues to lose salt. Shortly thereafter, the low salt level in the muscles can cause painful cramps. The affected muscles may be part of the arms, legs, or abdomen; but tired muscles (those used in performing the work) are generally the ones most susceptible. Cramps may occur during or after work hours and may be relieved by ingesting salted liquids.

CAUTION--PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT POTENTIAL HEALTH PROBLEMS.

Fainting. A worker who is not accustomed to hot environments and who stands immobile in the heat can faint. Due to the body's attempts to control internal temperature enlarged blood vessels in the skin and lower body may pool blood rather than return it to the heart to be pumped to the brain. Upon lying down, the worker should soon recover. By keeping active and moving around, blood should be prevented from pooling, and the patient can avoid further fainting.

Heat Rash. Heat rash is likely to occur in hot, humid environments where moisture is not readily evaporated from the surface of the skin leaving the skin wet most of the time. Sweat ducts become plugged, and a skin rash can develop. When the rash is extensive or complicated by infection, heat rash can be very uncomfortable and may reduce a worker's performance. The worker can prevent this condition by resting in a cool place part of each day and by regularly bathing and drying the skin.

Transient Heat Fatigue. Transient heat fatigue refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible, and they suffer, at varying degrees, a decline in task performance,

coordination, alertness, and/or vigilance. The severity of transient heat fatigue can be lessened by a period of gradual adjustment to the hot environment (heat acclimatization).

Preparing For Work in the Heat

One of the best ways to reduce heat stress on workers is to minimize the heat in the work place. However, there are some work environments where heat production is difficult to control, such as outdoors where exposed to various weather conditions.

Humans, to a large extent, are capable of adjusting to the heat. Adjusting to heat under normal circumstances usually takes 5 to 7 days, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable.

Gradual exposure to heat gives the body time to become accustomed to higher environmental temperatures. Heat disorders in general are more likely to occur among workers who have not been given time to adjust to working in the heat or among workers who have been away from hot environments or who have gotten accustomed to lower temperatures. Hot weather conditions of the summer are likely to affect the worker who is not acclimated to heat. Likewise, workers who return to work after a leisurely vacation or extended illness can be affected by the heat in the work environment. Under such circumstances, the worker should be allowed to acclimate to the hot environment.

Heat stress depends in part on the amount of heat the worker's body produces while a job is being performed. The amount of heat produced during hard, steady work is much higher than that produced during intermittent or light work. One way of reducing the potential for heat stress is to make the job less strenuous or to lessen its duration by providing adequate rest time.

Number and Duration of Exposures

Rather than be exposed to heat for extended periods of time during the course of a job, workers should, wherever possible, be permitted to distribute the workload evenly over the day and incorporate work-rest cycles. Work-rest cycles give the body an opportunity to get rid of excess heat, to slow down the production of internal body heat, and to provide greater blood flow to the skin.

Work employed outdoors are especially subject to weather changes. A heat wave or a rise in humidity can create overly stressful conditions.

Rest Areas. Providing cool rest areas in hot work environments considerably reduces the stress of working in those environments. Rest areas should be as close to the work area as possible, and should provide shade. Individual work periods should not be lengthened in favor of prolonged rest periods. Shorter but frequent work-rest cycles are the greatest benefit to the worker.

Drinking Water. In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced.

16 Nov 00

Most workers exposed to hot conditions drink less fluids than needed due to an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Instead, the worker, therefore, should not depend on thirst to signal when and how much to drink. Instead, the worker should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in the body. There is no optimum temperature of drinking water, but most people tend not drink warm or very cold fluids as readily as they will cool ones. Whatever the temperature of the water, it must be palatable and readily available. Individual drinking cups should be provided--never use a common drinking cup.

Heat acclimated workers lose much less salt in their sweat than do workers who are not adjusted to the heat. The average American diet contains sufficient salt for acclimated workers even when sweat production is high. If for some reason, salt replacement is required, the best way to compensate for loss is to add a little extra salt to the food. Salt tablets SHOULD NOT be used.

CAUTION--PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT POTENTIAL HEALTH PROBLEMS.

Protective Clothing. Clothing inhibits the transfer of heat between the body and the surrounding environment. Therefore, in hot jobs where the air temperature is lower than skin temperature, wearing excessive clothing reduces the body's ability to lose heat to the air. However, when air temperature is higher than skin temperature, clothing can help to prevent the transfer of heat from the air to the body. The advantage of wearing additional clothes may be nullified if the clothes interfere with the evaporation of sweat (such as rain slickers or chemical protective clothing).

I.14 BULK LIQUID CARGOES THAT CONTAIN BENZENE

This is a partial list of products (and their assigned CHRIS codes in parentheses) which contain benzene. The exact volumes will vary among manufacturers and batches. Benzene vapor concentrations that may be produced by these products will also vary from mixture to mixture, depending on the chemical properties and volume percentages of the different components.

benzene (BNZ)

benzene hydrocarbon mixtures containing 10% or more benzene (BHB)

benzene hydrocarbon mixtures with acetylene (BHA)

benzene, toluene, xylene mixtures (BTX)

C-5 mixture (15% or more benzene, isoprene, 1,3-pentadiene (CFX))

coal tar (COR)

coal tar pitch (CTP)

coal tar naphtha (NCT)

coal tar: see "oil" coal tar (OCT)

cyclopentadiene, styrene, benzene mixtures (CSB)

gas oil (GOC)

gasoline: aromatic (GAR)

gasoline: automotive (GAT)

gasoline: aviator (GAV)

gasoline: pyrolysis (greater than 5% benzene) (GPY)
gasoline: straight run (GSR)
gasoline: blending stock reformats (GRF)
jet fuel: JP-4 (JPF)...similar to Commercial Jet B
jet fuel: JP-5 (JPV)...similar to Commercial Jet A. Note: JP-5 generally does not
contain benzene except in trace amounts. Consult MSDS sheets for
specific manufacturer.
naphtha: see "coal tar naphtha" (NCT)
naphtha: solvent (NSV)
naphtha: stoddard solvent (NSS)
naphtha: VM&P (75% naphtha) NVM)
naphtha: see "petroleum naphtha (PTN)"
oil: crude oil (OIL)
oil: coal tar (OCT)
petroleum naphtha (PTN)
white spirit (WSP)
white spirit (low 15-20% aromatic) (WSL)

SOME TRADE NAME PRODUCTS WHICH MAY CONTAIN BENZENE:

"BUTADIENE, BENZENE MIX"
"COKE OVEN LIGHT OIL"
"COAL TAR LIGHT OIL"
"DEPENTANIZED AROMATIC STREAM"
"DRIPOLENE"
"ETHYLENE DICHLORIDE--CRUDE"
"HYTROL D"
"LIGHT AROMATICS CONTAINING BENZENE"
"NAPHTHA CRACKING FRACTION"
"PETROLEUM HYDROCARBON POLYMERS"
"PHENOL (AND CRESOL MIXTURES WITH 5% BENZENE OR MORE)"
"RAFFINATE"

COMNAVREGSWINST 5090.1C
16 Nov 00

This page intentionally left blank.

Appendix J

WILDLIFE MANAGEMENT

NOTE: In the event there is harm or potential for harm to wildlife from a OHS spill, contact the Natural Resource Trustees listed in Appendix A.

J.1 INTRODUCTION

Wildlife management will be conducted in accordance with the appropriate ACP and state and local requirements. It is essential to use the recognized experts and cognizant agencies as agreed to by the Unified Command in pursuing wildlife management during an OHS pollution incident response.

This Appendix provides additional background information for responding to the needs of these resources. Wildlife management may be accomplished through three levels of action:

Primary response: containment and recovery operations. No action with wildlife.

Secondary response: Deterrent, relocation, and/or removal of resources at risk.

Tertiary response. Capture, treatment, and release of the resources.

ACPs address the following:

1. Identification of fish and wildlife and sensitive areas.
2. Determination of sensitive, threatened and endangered species, and their vulnerabilities to oils;
3. Identification of regulatory agencies, agency jurisdictions, and lines of authority;
4. Identification of qualified recovery and rehabilitation organizations;
5. Identification of facilities and equipment resources;
6. Delineation of wildlife response protocols;
7. Management policy (e.g., chain of custody, euthanasia, temporary storage and disposal concerns).

Fish, wildlife, and sensitive areas within DoD/USN boundaries are under the trusteeship of DoD and are identified in the Navy FRPs. In inland areas, ACPs are incomplete due to the vast areas involved. An Area Committee and associated ACP are geographically synonymous with the EPA federal region for inland areas.

J.2 RESPONSE PRIORITIES

It is the responsibility of the spiller to take immediate actions to reduce impacts through containment and removal processes. These priorities intend to provide strategies that move from passive, minimal disturbance approaches to the more aggressive, maximum contact approach of movement, relocation, and treatment of threatened or injured fish and wildlife. The goal of wildlife management is to reduce handling or contacting wildlife species. Capture, removal, and rehabilitation of wildlife are to be used as a last resort.

J.2.1 NO RESPONSE ACTION

The goal of “no response” is to minimize injury to wildlife resources by avoiding interference through any action. In some situations, fish and wildlife are not immediately endangered or injured by the discharge of oil. Some habitat types recover better naturally, and human intervention can hinder recovery. For example, in some oiled marshes, oil can be trampled into the sediment from response operations if intrusive attempts are made to remove oil or cut vegetation.

J.2.2 PRIMARY RESPONSE STRATEGY

The primary response strategy for wildlife protection emphasizes the containment of spilled oil at the source to prevent or reduce contamination to species and their habitats. Primary response strategies may include mechanical cleanup, protective booming, *in situ* burning, and dispersant usage. Removal of oiled debris, especially contaminated food sources (both in the water and on the land), is a primary response strategy that can reduce chances of oiled wildlife entering the spill area.

Dispersion of oil through natural agitation (e.g., wave action) and through chemical dispersant application will remove the oil from the surface of the water, removing the threat to birds. When natural dispersion cannot be controlled or relied upon, the use of chemical dispersants becomes a possible solution. From the Navy's perspective, however, using dispersants is often not an option given the properties of oils in use by the Navy.

J.2.3 SECONDARY RESPONSE STRATEGY

The secondary response strategy emphasizes the prevention of wildlife from entering the area through the use of deterrent techniques. These techniques may include auditory methods (e.g., firing propane cannons), visual methods (e.g., Mylar tape or scarecrows), and other methods, such as preemptive capture and relocation.

J.2.3.1 WILDLIFE DETERRENT TECHNIQUES

Deterrent techniques may be used to disperse and exclude wildlife from specific areas. Gas-operated exploders, pyrotechnics, aircraft, electronic sound generators, balloons, and lights have all been used as deterrents to scare wildlife away from a potentially hazardous area, either for wildlife or human safety.

J.2.3.2 PREEMPTIVE CAPTURE

Preemptive capture includes the capture, handling, transportation, holding, and releasing of healthy, uncontaminated wildlife. Preemptive capture is a good alternative for protecting otters from oil contact, since they appear to habituate quickly to visual and auditory deterrents. However, preemptive capture is feasible when only a few otters are threatened.

J.2.3.3 PRIORITIZATION OF SECONDARY RESPONSE STRATEGIES

Deterrence/hazing or capture and holding all potentially impacted wildlife may not be possible. Prioritization of the areas in which secondary response strategies may be applied must be based on the presence of threatened or endangered species; the ability of a species to recover from losses; and the responsiveness of the species to hazing procedures.

J.2.3.4 LEGAL REQUIREMENTS FOR SECONDARY RESPONSE STRATEGIES

J.2.4 TERTIARY

Tertiary response is a strategy of last resort. This strategy entails the capture and treatment of oiled wildlife. Typically only a small percentage of wildlife highly sensitive to effects of oiling (e.g., birds and sea otters) will be captured if oiled. Of those captured, some will not be healthy enough to survive the treatment process. For tertiary response to be effective, preplanning for wildlife response capabilities (e.g., expertise, equipment, and facilities) is essential. Sections M.3.4.1 - M.3.4.4 describe the major components of tertiary response. As with secondary response, tertiary response requires approval from the FOSC and from the applicable trustee agencies.

J.3 IDENTIFICATION OF WILDLIFE RESPONSE ORGANIZATIONS

16 Nov 00

Several wildlife response organizations in the United States have experience in treating wildlife impacted by an oil spill situation. Trained and experienced wildlife specialists deal with recovery and rehabilitation of wildlife under conditions other than oil spills; contracting with an organization that understands oil spill operations, and that can work within the ICS response system is essential. Knowledge and expertise should be drawn upon from other areas if it can be applied to an oil spill.

When evaluating a wildlife response organization, identify what capabilities are needed for the worst case discharge and area at risk. Some wildlife response organizations are trained and permitted to respond to avian species only, while others are capable of responding to mammalian species only. Organizations rarely claim total expertise for both categories of animals. Reputable organizations, however, work closely with other entities that have complementary capabilities.

Most wildlife response organizations now require a contract to name them as a responder in a plan. A contractual arrangement ensures that the required capability will be accessible during a spill.

J.4 FEDERAL AND STATE REQUIREMENTS AND POINTS OF CONTACT

Federal and state natural resource trustee agencies are responsible for ensuring the protection of fish, wildlife and sensitive areas. During the pre-incident planning stage, these entities must be identified, and lines of authority must be understood. By identifying the federal and state responsibilities and capabilities that exist in the NOSC AOR, the NOSC will be better prepared to respond to wildlife issues. Discussing wildlife protection strategies and wildlife management plans will enhance the effectiveness of the response and will ensure that federal and state regulations are not violated, and that people are not put at risk by trying to handle injured wildlife without proper training. If the NOSC can identify a specific point of contact on whom to rely in an emergency, the natural resource agencies can respond faster and can work within the Navy's ICS more efficiently. The following sections will discuss the natural resource agencies with which the NOSC may need to cooperate.

J.4.1 U. S. FISH AND WILDLIFE SERVICE (USFWS)

The USFWS, under DOI, is responsible for managing and protecting migratory birds, anadromous and freshwater fishes, terrestrial endangered species, walruses, sea otters, and polar bears. DOI, through USFWS, is also responsible for the administration of the Endangered Species Act. The USFWS is the permitting agency for handling migratory birds and sea otters, and other species under its purview.

Because birds and sea otters are the species most vulnerable to spills, the USFWS will be a primary point of contact. The USFWS has a national oiled wildlife management contingency plan and trained Spill Response Coordinators. These people are trained in ICS, experienced in spill response, and permitted to handle migratory birds and other species under the jurisdiction of

the Service. This USFWS plan is in the final development stages and will be included as a reference to this appendix once it is completed.

J.4.2 NATIONAL MARINE FISHERIES SERVICE (NMFS)

Examples of NOAA's trusteeship include the following natural resources and their supporting ecosystems: marine fishery resources; anadromous fish; endangered species and marine mammals; and the resources of National Marine Sanctuaries and National Estuarine Research Reserves.

NOAA's National Marine Fisheries Service has trained people to handle oiled and injured marine mammals. NMFS, through the Department of Commerce, is responsible for the administration of the Endangered Species Act as it applies to certain cetaceans and pinnipeds. NMFS is the permitting agency for handling marine mammals.

J.4.3 NATURAL RESOURCE POLICIES, REGULATIONS, AND STATUTES APPLICABLE TO OILED WILDLIFE MANAGEMENT

Under the Endangered Species Act (ESA) and the Migratory Bird Treaty Act (MBTA), the U.S. Fish and Wildlife Service has responsibility for managing and protecting migratory birds, walruses, sea otters, and polar bears. Under the ESA and Marine Mammal Protection Act (MMPA), National Marine Fisheries Service is responsible for managing and protecting all cetaceans and pinnipeds, except walruses. **Both agencies must be notified if wildlife under their respective jurisdictions is threatened or affected by an oil spill.**

Applicable Statutes

The **Endangered Species Act** (*16 U.S.C. 1531 et. seq.*), as amended, provides protective measures for species listed as threatened or endangered and their critical habitats. The ESA prohibits federal agencies from jeopardizing the continued existence of listed species and, unless otherwise authorized, prohibits all parties from "taking" listed species. According to the ESA, "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such manner.

Section 7 of the ESA requires any federal agency that authorizes, funds, or carries out activities that may affect listed species or critical habitats to consult with USFWS and/or NMFS. Therefore, the FOOSC must immediately consult with USFWS or NMFS whenever a response may affect these resources. The ESA and its implementing regulations provide special provisions for consultations during emergencies such as oil spills. Although informal consultations and emergency provisions exist under the ESA, a formal consultation is recommended to protect both the NOSC and the endangered species adequately. Formal consultations may be conducted through the area committee process, but documentation must be substantive.

16 Nov 00

The **Migratory Bird Treaty Act** (16 U.S.C. 703) prohibits taking or harming migratory and certain other birds, their eggs, nests, or young without the appropriate permit. Migratory bird collection and holding must be coordinated with, and a permit obtained from, the USFWS.

The **Bald Eagle Protection Act** specifically prohibits the disturbance of raptors.

The **Marine Mammal Protection Act** prohibits the taking of sea otters, seals, sea lions, walruses, whales, dolphins, and porpoises. Taking includes harassing or disturbing these animals as well as actual harming or killing. Section 109 (h) of this act allows taking by a federal or state governmental official during official duties, if the taking is for the welfare and protection of the animal. Accordingly, the FOSC is authorized to take marine mammals during an oil spill response. Any takes must be coordinated with and permitted by NMFS.

J.5 REFERENCES

Guidance for Oiled Wildlife Care (CA OSPR 1993)

Alaska Regional Response Team, Oiled Wildlife Guidelines

American Society for Testing and Materials (ASTM) Standard 1987

International Bird Rescue and Research Center Contingency Plan, Berkeley, CA. 1994.

NOAA. An Introduction to Coastal Habitats and Biological Resources for Oil Spill Response. Hazardous Materials Assessment and Response Division, National Oceanic and Atmospheric Administration. Report No. HMRAD 92-4, April. 1992.

NOAA. Template: *Shoreline Countermeasures Manual: Temperate Coastal Environments*. Hazardous Materials Assessment and Response Division, National Oceanic and Atmospheric Administration. Dec 1992.

NOAA, Ocean Assessments Division. *Natural Resource Response Guide: Marine Birds*. NOAA publication. April 1988. pp. 31.

NOAA, Ocean Assessments Division. *Natural Resource Response Guide: Marine Shellfish*. NOAA publication. February 1989. pp. 31.

NOAA, Ocean Assessments Division. *Natural Resource Response Guide: Marine Fish*. NOAA publication. September 1987. pp. 31.

NOAA, Ocean Assessments Division. *Natural Resource Response Guide: Marine Mammals*. NOAA publication. January 1989. pp. 31.

Appendix K

U.S. NAVY ADMIRALTY CLAIMS GUIDANCE

DEPARTMENT OF THE NAVY OFFICE OF THE JUDGE ADVOCATE GENERAL

Civil Law - Admiralty (Code 31)
1322 Patterson Avenue, Suite 3000
Washington Navy Yard, DC 20374-5066
(202) 685-5040/DSN 325-5040
FAX (202) 685-7151/DSN 325-7151

U.S. Navy Admiralty Claims

The Admiralty Division of the Office of the Judge Advocate General is responsible for adjudicating all tort claims within the admiralty jurisdiction arising from the operation of Department of the Navy vessels or otherwise involving naval personnel or property. A brief discussion follows about the authority and procedures governing the Navy's administrative claims adjudication practice.

The Secretary of the Navy has authority, pursuant to section 7622 of Title 10 of the United States Code (1988), to settle admiralty claims for damage caused by a U.S. Navy vessel or other property of the U.S. Navy, or by a maritime tort committed by an agent or employee of the U.S. Navy, where legal liability exists and the matter is not in litigation. The Secretary's authority is subject to a two-year limitation period, which is not extended by the filing of a claim or by any correspondence or negotiations related to a claim. In other words, a claim must be approved for payment within two years of the date on which it arose. Notice of this two-year limitation period is provided to the public at section 752.3(d) of Title 32 of the Code of Federal Regulations (1994).

Further, law suits against the United States based upon maritime torts committed by agents or employees of the Navy, or for damages caused by a Navy vessel, must be brought under either the Suits in Admiralty Act, appendix sections 741-752 of Title 46 of the United States Code, (1988), or the Public Vessels Act, appendix sections 781-790 of Title 46 of the United States Code, (1988). Both of these statutes contain two-year limitation periods running from the date of the event upon which a suit is based. These statutes specify that a United States District Court is the only proper forum for such litigation.

No particular form is needed to assert a claim of this nature; however, every claim must be in writing, signed by the claimant or the claimant's representative, and must state the sum certain amount being demanded from the United States. Furthermore, a claimant bears the burden of providing supporting evidence from which Navy liability and the full measure of damage can be determined with a reasonable degree of certainty. Claims may be mailed to the Admiralty Division at the letterhead address; for convenience, our fax number is also included.

16 Nov 00

Claims are adjudicated according to the "probable results of litigation," 32 CFR § 752.2(c). That is, the claimant is entitled to recover only those sums that would be expected to be awarded by a Federal court, were the case to be litigated. When the claimant and the Navy agree on a settlement amount, a U.S. Treasury check is obtained and provided to the claimant in exchange for a release from further liability.

APPENDIX L DRILLS AND EXERCISE PROCEDURES

1. The following is a sample drill and exercise schedule:

Drills are to be designed to test the fifteen core components of a response plan: following is a recommended schedule for the triennial cycle:

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
YEAR 1	QIN	TTE	FEX	QIN			QIN	FEX	OSRO	QIN		
YEAR 2	FEX (U)	QIN	OSRO		QIN	TTE (U)	FEX	QIN			QIN	
YEAR 3			QIN		FEX (U)	QIN	OSRO (U)		QIN	TTE	FEX	QIN

QIN — Qualified Individual Notification Drill

TTE — Spill Management Team (SMT) Table Top Exercise

FEX — Facility Owned Equipment Deployment Exercise

OSRO — Oil Spill Removal Organization Equipment Deployment Exercise

(U) — INDICATES AN UNANNOUNCED DRILL

TABLE L.1 CORE TEST COMPONENTS OF A RESPONSE PLAN		
ORGANIZATIONAL DESIGN	OPERATIONAL RESPONSE	RESPONSE SUPPORT
Notifications	Discharge Control	Communications
Staff Mobilization	Assessment of Discharge	Transportation
Ability to operate within the response management system described in the plan	Containment of Discharge	Personnel Support
	Recovery of Spilled Material	Equipment Maintenance and Support
	Protection of Economic, Fish and Wildlife and Sensitive Environments	Procurement
	Disposal of Recovered Products and Response Waste	Documentation

L.1 TRAINING LOGS

16 Nov 00

Records of training will be maintained with other personal training records at a designated location. The record should record the date the training was attended, location of training, a brief summary of the material covered, and an indication of the skill covered by the training.

L.2 DRILLS AND EXERCISE LOGS

The following tables describe the NAVBASE San Diego drill and exercise program procedures and the logs required to record drills and exercises. A record must be maintained for each internal drill and exercise and Area exercise.

TABLE L.2 FACILITY AND REGIONAL QUALIFIED INDIVIDUAL NOTIFICATION DRILLS	
APPLICABILITY:	Facility
FREQUENCY:	Quarterly, or routine communication if it occurs on at least a quarterly basis.
INITIATING AUTHORITY:	FIC
PERSON RESPONSIBLE FOR CONDUCTING THIS DRILL:	As Designated
PARTICIPATING ELEMENTS:	Facility response personnel, FIC, and NOSC
SCOPE:	Exercise communication between the facility personnel and the Facility and Regional Qualified Individuals.
OBJECTIVES:	Contact must be made with the FIC and the NOSC as designated in the response plan.
CERTIFICATION:	Self-Certification
VERIFICATION:	Verification to be accomplished by federal and state regulatory representatives during site visits.
RECORD RETENTION:	5 years
LOCATION:	Records must be kept at the facility
POST SPILL REVIEW:	Self-Evaluation
CREDIT:	The plan holder may take credit for this exercise in the course of conducting routine business or other drills, provided that the objectives of the drill are met and the drill is properly recorded. Similarly, credit may be received for an actual spill response when these objectives are met and a proper record generated.

16 Nov 00

TABLE L.3 FACILITY AND QUALIFIED INDIVIDUAL NOTIFICATION LOG		
TOPIC		INFORMATION
DATE		
TYPE DRILL/EMERGENCY SCENARIO		
ANNOUNCED OR UNANNOUNCED		
FACILITY QUALIFIED INDIVIDUAL DRILL	CONTACT METHOD	
	TIME OF CONTACT	
	TIME OF CONFIRMATION	
REGIONAL QUALIFIED INDIVIDUAL DRILL	CONTACT METHOD	
	TIME OF CONTACT	
	TIME OF CONFIRMATION	
POST SPILL REVIEW:		
CHANGES TO BE IMPLEMENTED:		
TIMETABLE FOR IMPLEMENTATION:		
SIGNATURE OF RESPONSIBLE OFFICIAL:		

TABLE L.4 SPILL MANAGEMENT TEAM TABLETOP EXERCISE	
APPLICABILITY:	Facility
FREQUENCY:	Annually
INITIATING AUTHORITY:	FIC
PERSON RESPONSIBLE FOR CONDUCTING THIS DRILL:	NAVBASE (NAVSTA) Environmental Coordinator
PARTICIPATING ELEMENTS:	Spill Management Team (Incident Response System Management Team – including at a minimum the FIC, Deputy FIC, Command Staff, and Section Chiefs)
SCOPE:	Exercise the Spill Management Team's organization, communication, and decision making skills in managing a spill response.
OBJECTIVES:	<p>At least one Spill Management Team Tabletop Exercise in a triennial cycle will involve simulation of a worst case discharge scenario.</p> <p>Exercise the Spill Management Team in a review of:</p> <ul style="list-style-type: none"> • Knowledge of the response plan • Proper notification • Communications system • Ability to access the Oil Spill Response Organizations (NOSC and any BOA Contractors) • Coordination of organization/agency personnel with responsibility for spill response • Ability to effectively coordinate spill response activity with National Response System infrastructure • Ability to access information in Area Contingency Plan for location of sensitive areas, resources available within the Area, unique conditions of the Area, etc.
CERTIFICATION:	Self-Certification
VERIFICATION:	Verification to be accomplished by federal and state regulatory representatives during site visits.
RECORD RETENTION:	5 years
LOCATION:	Records must be kept at Waterfront Operations Department
POST SPILL REVIEW:	Self-Evaluation
CREDIT:	The plan holder may take credit for this exercise in the course of conducting routine business or other drills, provided that the objectives of the drill are met and the drill is properly recorded. Similarly, credit may be received for an actual spill response when these objectives are met and a proper record generated.

[illegible]

TABLE L.6 SPILL RESPONSE EQUIPMENT DEPLOYMENT DRILLS	
APPLICABILITY:	Facility with facility-owned (Navy) response equipment
FREQUENCY:	Semiannually
INITIATING AUTHORITY:	FIC
PERSON RESPONSIBLE FOR CONDUCTING THIS DRILL:	NOSC and NAVBASE (NAVSTA) Environmental Coordinator
PARTICIPATING ELEMENTS:	Facility response personnel responsible for logistics and equipment deployment
SCOPE:	<p>Deploy and operate facility-owned response equipment identified in the response plan. Only a representative sample of each type of equipment or that equipment that is necessary to respond to an average most probable discharge whichever is less, need be deployed. (At least 1000' of each type of boom in the inventory [only 50' of Bottom Seal boom] and one of each type of skimming system must be deployed to receive credit for this drill)</p> <p>The remainder of the equipment which is not deployed must be included in a comprehensive training and maintenance program. Credit will be given for deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices. All inspection and maintenance must be documented by the owner.</p>
OBJECTIVES:	<p>Demonstrate ability of facility personnel to deploy and operate equipment.</p> <p>Ensure response equipment is in proper working order. Dysfunctional response equipment is to be repaired or replaced within 30 days.</p>
CERTIFICATION:	Self-Certification
VERIFICATION:	Verification to be accomplished by federal and state regulatory representatives during site visits.
RECORD RETENTION:	5 years
LOCATION:	Records must be kept at the facility
POST SPILL REVIEW:	Self-Evaluation
CREDIT:	The plan holder may take credit for this exercise in the course of conducting routine business, during NFESC or NFESC training contractor provided courses, or other drills, provided that the objectives of the drill are met and the drill is properly recorded. Similarly, credit may be received for an actual spill response when these objectives are met and a proper record generated.

NOTE: If a facility with facility-owned equipment also identifies Oil Spill Response Organization (OSRO) equipment in their response plan, the OSRO equipment must also be deployed and operated in accordance with the equipment deployment requirements for OSRO owned equipment. An OSRO that responds to and has equipment pre-staged in various geographic areas is required to conduct Equipment Deployment Drills in each area on an annual basis.

16 Nov 00

TABLE L.7 RESPONSE EQUIPMENT DEPLOYMENT DRILL AND EXERCISE LOG	
TOPIC	INFORMATION
DATE	
TYPE DRILL/EMERGENCY SCENARIO	
ANNOUNCED OR UNANNOUNCED	
ON-SITE OR CONTRACTOR (If contractor, OSRO certification if applicable)	
EQUIPMENT ACTUALLY DEPLOYED	
RESPONSE TIME	
POST SPILL REVIEW:	
CHANGES TO BE IMPLEMENTED:	
TIMETABLE FOR IMPLEMENTATION:	
SIGNATURE OF RESPONSIBLE OFFICIAL:	

TABLE L.8 UNANNOUNCED DRILLS	
APPLICABILITY:	Response Plan Holders (Facility and Regional) within a COTP Area
FREQUENCY:	Annually NOTE: Plan holders are not required to participate in a federal government initiated unannounced drill if they have participated in an unannounced federal or state oil spill response drill within the previous 36 months.
INITIATING AUTHORITY:	FIC, NOSC, U.S. Coast Guard, U.S. Environmental Protection Agency, and/or Office of Pipeline Safety
PERSON RESPONSIBLE FOR CONDUCTING THIS DRILL:	NOSC
PARTICIPATING ELEMENTS:	Response Plan Holders
SCOPE:	<p><u>Initiated by NOSC:</u></p> <ul style="list-style-type: none"> • May be any required drill except Notification Drill • Must conduct proper notifications for the scenario • Must involve equipment once every 3 years <p><u>USCG/EPA/OPS-initiated</u></p> <ul style="list-style-type: none"> • A maximum of 4/COTP Zone/EPA Region per year • Will be limited to a maximum of four hours duration. • Will involve response to an average most probable discharge scenario. • Will require proper notifications for the scenario. • Will involve equipment deployment to respond to the spill scenario. • Will not be required for a pipeline by the USCG or EPA since this will be covered by OPS.
OBJECTIVE:	<p>Conduct proper notifications to respond to the unannounced scenario of an average most probable discharge and demonstrate that equipment deployment is:</p> <ul style="list-style-type: none"> • Timely • Conducted with adequate amount of equipment for scenario • Properly deployed
CERTIFICATION:	Initiating Agency (including FIC and NOSC)
VERIFICATION:	Initiating Agency (including FIC and NOSC)
RECORD RETENTION:	5 years
LOCATION:	Records must be kept at the facility
POST SPILL REVIEW:	Evaluation to be conducted by initiating agency (including FIC and NOSC).
CREDIT:	The plan holder may take credit for this exercise in the course of conducting an actual spill response, provided that the plan is used for response to the spill, the objectives of the drill are met and properly evaluated and documented and the event is properly recorded.

L-10

L.3 DISCHARGE PREVENTION MEETING LOGS

This section contains the record of discharge prevention meetings.

TABLE L.10 DISCHARGE PREVENTION MEETING RECORD			
DATE: <input type="text"/>			
ATTENDEES:	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
TOPIC		DESCRIPTION	
SUBJECTS DISCUSSED	1.	<input type="text"/>	
	2.	<input type="text"/>	
	3.	<input type="text"/>	
	4.	<input type="text"/>	
ACTIONS REQUIRED	1.	<input type="text"/>	
	2.	<input type="text"/>	
	3.	<input type="text"/>	
	4.	<input type="text"/>	
IMPLEMENTATION DATE:			
COMMENTS:			
SIGNATURE OF RESPONSIBLE OFFICIAL:			

COMNAVREGSWINST 5090.1C
16 Nov 00

This page intentionally left blank.

Appendix M

CERCLA AND TITLE III REPORTABLE QUANTITIES

The following list contains the list of Federal reportable quantities (RQ) for the listed hazardous substances. If the spilled hazardous substance is listed and the RQ has been exceeded, the spill must be reported. If the hazardous substance is not listed, ensure the hazardous substance is not listed on any state or local RQ lists or Acts.



Title III List of Lists

Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 112(r) of the Clean Air Act, as Amended

Title III of the Superfund Amendments
and Reauthorization Act of 1986,
and Title III of the Clean Air Act
Amendments of 1990

- EPCRA Section 302 Extremely Hazardous Substances
- CERCLA Hazardous Substances
- EPCRA Section 313 Toxic Chemicals
- CAA 112(r) Regulated Chemicals For Accidental Release Prevention

TABLE OF CONTENTS

	<u>Page</u>
Introduction	i
Title III List of Lists -- Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act, as Amended	1
Appendix A: Alphabetical Listing of Chemical Name and CAS Number	A-1
Appendix B: Radionuclides Listed Under CERCLA	B-1
Appendix C: RCRA Waste Streams and Unlisted Hazardous Wastes	C-1

TITLE III LIST OF LISTS
**Consolidated List of Chemicals Subject to the Emergency Planning and
Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act, as Amended**

This consolidated chemical list includes chemicals subject to reporting requirements under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)¹, also known as the Emergency Planning and Community Right-to-Know Act (EPCRA), and chemicals listed under section 112(r) of Title III of the Clean Air Act (CAA) of 1990, as amended. This consolidated list has been prepared to help firms handling chemicals determine whether they need to submit reports under sections 302, 304, or 313 of SARA Title III (EPCRA) and, for a specific chemical, what reports may need to be submitted. It also will also help firms determine whether they will be subject to accident prevention regulations under CAA section 112(r). Separate lists are also provided of Resource Conservation and Recovery Act (RCRA) waste streams and unlisted hazardous wastes, and of radionuclides reportable under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). These lists should be used as a reference tool, not as a definitive source of compliance information. Compliance information for EPCRA is published in the Code of Federal Regulations (CFR), 40 CFR Parts 302, 355, and 372. Compliance information for CAA section 112(r) is published in 40 CFR Part 68.

The chemicals on the consolidated list are ordered by Chemical Abstracts Service (CAS) registry number. Categories of chemicals, which generally do not have CAS registry numbers, but which are cited under CERCLA and EPCRA section 313, are placed at the end of the list. For reference purposes, the chemicals (with their CAS numbers) are ordered alphabetically following the CAS-order list.

The list includes chemicals referenced under five federal statutory provisions, discussed below. More than one chemical name may be listed for one CAS number, because the same chemical may appear on different lists under different names. For example, for CAS number 8001-35-2, the names toxaphene (from the section 313 list), camphechlor (from the section 302 list), and camphene, octachloro- (from the CERCLA list) all appear on this consolidated list. The chemical names on this consolidated list generally are those names used in the regulatory programs developed under SARA Title III (EPCRA), CERCLA, and CAA section 112(r), but each chemical may have other synonyms that do not appear on this list.

(1) EPCRA Section 302 Extremely Hazardous Substances (EHSs)

The presence of EHSs in quantities in excess of the Threshold Planning Quantity (TPQ), requires certain emergency planning activities to be conducted. The extremely hazardous substances and their TPQs are listed in 40 CFR Part 355, Appendices A and B.

TPQ. The consolidated list presents the TPQ (in pounds) for section 302 chemicals in the

¹ **This consolidated list does not include all chemicals subject to the reporting requirements in sections 311 and 312 of SARA Title III (EPCRA). These hazardous chemicals, for which material safety data sheets (MSDS) must be developed under Occupational Safety and Health Act Hazard Communication Standards, are identified by broad criteria, rather than by enumeration. There are over 500,000 products that satisfy the criteria. See 40 CFR Part 370 for more information.**

column following the chemical name. For chemicals that are solids, there may be two TPQs given (e.g., 500/10,000). In these cases, the lower quantity applies for solids in powder form with particle size less than 100 microns, or if the substance is in solution or in molten form. Otherwise, the 10,000 pound TPQ applies.

EHS RQ. Releases of reportable quantities (RQ) of EHSs are subject to state and local reporting under section 304 of SARA Title III (EPCRA). EPA has promulgated a rule (61 FR 20473, May 7, 1996) that adjusted RQs for EHSs without CERCLA RQs to levels equal to their TPQs. The EHS RQ column lists these adjusted RQs for EHSs not listed under CERCLA and the CERCLA RQs for those EHSs that are CERCLA hazardous substances (see the next section for a discussion of CERCLA RQs).

(2) CERCLA Hazardous Substances

Releases of CERCLA hazardous substances, in quantities equal to or greater than their reportable quantity (RQ), are subject to reporting to the National Response Center under CERCLA. Such releases are also subject to state and local reporting under section 304 of SARA Title III (EPCRA). CERCLA hazardous substances, and their reportable quantities, are listed in 40 CFR Part 302, Table 302.4. Radionuclides listed under CERCLA are provided in a separate list, with RQs in Curies.

RQ. The CERCLA RQ column in the consolidated list shows the RQs (in pounds) for chemicals that are CERCLA hazardous substances. Carbamate wastes under RCRA that have been added to the CERCLA list with statutory one-pound RQs are indicated by an asterisk ("*") following the RQ.

Metals. For metals listed under CERCLA (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, and zinc), no reporting of releases of the solid form is required if the mean diameter of the pieces of the solid metal released is greater than 100 micrometers (0.004 inches). The RQs shown on the consolidated list apply to smaller particles.

Note that the consolidated list does not include all CERCLA regulatory synonyms. See 40 CFR Part 302, Table 302.4 for a complete list.

(3) CAA Section 112(r) List of Substances for Accidental Release Prevention

Under the accident prevention provisions of section 112(r) of the CAA, EPA developed a list of 77 toxic substances and 63 flammable substances. Threshold quantities (TQs) were established for these substances. The list and TQs identify facilities subject to accident prevention regulations. The list of substances and TQs and the requirements for risk management programs for accidental release prevention are found in 40 CFR Part 68. This consolidated list includes both the common name for each listed chemical under section 112(r) and the chemical name, if different from the common name, as separate listings.

The CAA section 112(r) list includes several substances in solution that are covered only in concentrations above a specified level. These substances include: ammonia (concentration 20% or greater) (CAS number 7664-41-7); hydrochloric acid (37% or greater) (7647-01-0); hydrogen fluoride/hydrofluoric acid (50% or greater) (7664-39-3); and nitric acid (80% or greater) (7697-37-2). Hydrogen chloride (anhydrous) and ammonia (anhydrous) are listed, in addition to the solutions of these substances, with different TQs. Only the anhydrous form of sulfur dioxide (7446-09-5) is covered.

These substances are presented on the consolidated list with the concentration limit or specified form (e.g., anhydrous), as they are listed under CAA section 112(r).

TQ. The CAA section 112(r) TQ column in the consolidated list shows the TQs (in pounds) for chemicals listed for accidental release prevention.

(4) EPCRA Section 313 Toxic Chemicals

Emissions, transfers, and waste management data for chemicals listed under section 313 must be reported annually as part of the community right-to-know provisions of SARA Title III (EPCRA) (40 CFR Part 372).

Section 313. The notation "313" in the column for section 313 indicates that the chemical is subject to reporting under section 313 and section 6607 of the Pollution Prevention Act under the name listed. In cases where a chemical is listed under section 313 with a second name in parentheses or brackets, the second name is included on this consolidated list with an "X" in the section 313 column. An "X" in this column also may indicate that the same chemical with the same CAS number appears on another list with a different chemical name. For chemical categories reportable under section 313, category codes for section 313 reporting are listed in this column.

Diisocyanates and PACs. In the November 30, 1994, expansion of the section 313 list, 20 specific chemicals were added as members of the diisocyanate category, and 19 specific chemicals were added as members of the polycyclic aromatic compounds (PAC) category. These chemicals are included in the CAS order listing on this consolidated list. The symbol "#" following the "313" notation in the section 313 column identifies diisocyanates, and the symbol "+" identifies PACs, as noted in footnotes. Chemicals belonging to these categories are reportable under section 313 by category, rather than by individual chemical name.

Ammonium Salts. The listing for ammonia under section 313 includes anhydrous ammonia and aqueous ammonia from water dissociable salts and other sources. Ten percent of total aqueous ammonia is reportable under this listing.

(5) Chemical Categories

The CERCLA and EPCRA section 313 lists include a number of chemical categories as well as specific chemicals. Categories appear on this consolidated list at the end of the CAS number listing. Specific chemicals listed as members of the diisocyanate and PAC categories under EPCRA section 313 (see section (4) above) are included in the list of specific chemicals by CAS number, not in the category listing. The chemicals on the consolidated list have not been systematically evaluated to determine whether they fall into any listed categories.

Some chemicals not specifically listed under CERCLA may be subject to CERCLA reporting as part of a category. For example, strychnine, sulfate (CAS number 60-41-3), listed under EPCRA section 302, is not individually listed on the CERCLA list, but is subject to CERCLA reporting under the listing for strychnine and salts (CAS number 57-24-9), with an RQ of 10 pounds. Similarly, nicotine sulfate (CAS number 65-30-5) is subject to CERCLA reporting under the listing for nicotine and salts (CAS number 54-11-5, RQ 100 pounds), and warfarin sodium (CAS number 129-06-6) is subject to CERCLA reporting under the listing for warfarin and salts, concentration >0.3% (CAS number 81-81-2, RQ 100

pounds). Note that some CERCLA listings, although they include CAS numbers, are for general categories and are not restricted to the specific CAS number (e.g., warfarin and salts). The CERCLA list also includes a number of generic categories that have not been assigned RQs; chemicals falling into these categories are considered CERCLA hazardous substances, but are not required to be reported under CERCLA unless otherwise listed under CERCLA with an RQ.

A number of chemical categories are subject to EPCRA section 313 reporting. Be aware that certain chemicals listed under EPCRA section 302, CERCLA, or CAA section 112(r) may belong to section 313 categories. For example, mercuric acetate (CAS number 1600-27-7), listed under section 302, is not specifically listed under section 313, but could be reported under section 313 as "Mercury Compounds" (no CAS number).

(6) **RCRA Hazardous Wastes**

The consolidated list includes specific chemicals from the RCRA P and U lists only (40 CFR 261.33). This listing is provided as an indicator that companies may already have data on a specific chemical that may be useful for SARA Title III reporting. It is not intended to be a comprehensive list of RCRA P and U chemicals. RCRA hazardous wastes consisting of waste streams on the F and K lists, and wastes exhibiting the characteristics of ignitability, corrosivity, reactivity, and toxicity, are provided in a separate list. This list also includes carbamate wastes added to the CERCLA list with one-pound statutory RQs (indicated by an asterisk ("*") following the RQ). The descriptions of the F and K waste streams have been abbreviated; see 40 CFR Part 302, Table 302.4, or 40 CFR Part 261 for complete descriptions.

RCRA Code. The letter-and-digit code in the RCRA Code column is the chemical's RCRA hazardous waste code.

TITLE III LIST OF LISTS
CONSOLIDATED LIST OF CHEMICALS SUBJECT TO THE EMERGENCY PLANNING AND
COMMUNITY RIGHT-TO-KNOW ACT (EPCRA) AND SECTION 112(r) OF THE CLEAN AIR ACT, AS AMENDED

CAS Number	Chemical Name	Section 304					
		Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
50-00-0	Formaldehyde	500	100	100	15,000	313	U122
50-00-0	Formaldehyde (solution)	500	100	100	15,000	X	U122
50-07-7	Mitomycin C	500/10,000	10	10			U010
50-14-6	Ergocalciferol	1,000/10,000	1,000				
50-18-0	Cyclophosphamide			10			U058
50-29-3	DDT			1			U061
50-32-8	Benzo[a]pyrene			1		313+	U022
50-55-5	Reserpine			5,000			U200
51-03-6	Piperonyl butoxide					313	
51-21-8	Fluorouracil	500/10,000	500			313	
51-21-8	5-Fluorouracil	500/10,000	500			X	
51-28-5	2,4-Dinitrophenol			10		313	P048
51-43-4	Epinephrine			1,000			P042
51-75-2	2-Chloro-N-(2-chloroethyl)-N-methylethanamine	10	10			X	
51-75-2	Mechlorethamine	10	10			X	
51-75-2	Nitrogen mustard	10	10			313	
51-79-6	Carbamic acid, ethyl ester			100		X	U238
51-79-6	Ethyl carbamate			100		X	U238
51-79-6	Urethane			100		313	U238
51-83-2	Carbachol chloride	500/10,000	500				
52-68-6	Phosphonic acid, (2,2,2-trichloro-1-hydroxyethyl)-,di			100		X	
52-68-6	Trichlorfon			100		313	
52-85-7	Famphur			1,000		313	P097
53-70-3	Dibenz[a,h]anthracene			1		313+	U063
53-96-3	2-Acetylaminofluorene			1		313	U005
54-11-5	Nicotine	100	100	100			P075
54-11-5	Nicotine and salts			100			P075
54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-,(S)-	100	100	100			P075
54-62-6	Aminopterin	500/10,000	500				
55-18-5	N-Nitrosodiethylamine			1		313	U174
55-21-0	Benzamide					313	
55-38-9	O,O-Dimethyl O-(3-methyl-4-(methylthio) phenyl) es					X	
55-38-9	Fenthion					313	
55-63-0	Nitroglycerin			10		313	P081
55-91-4	Diisopropylfluorophosphate	100	100	100			P043
55-91-4	Isofluorphate	100	100	100			P043
56-04-2	Methylthiouracil			10			U164
56-23-5	Carbon tetrachloride			10		313	U211
56-25-7	Cantharidin	100/10,000	100				
56-35-9	Bis(tributyltin) oxide					313	
56-38-2	Parathion	100	10	10		313	P089
56-38-2	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	100	10	10		X	P089
56-49-5	3-Methylcholanthrene			10			U157
56-53-1	Diethylstilbestrol			1			U089
56-55-3	Benz[a]anthracene			10		313+	U018
56-72-4	Coumaphos	100/10,000	10	10			

+ Member of PAC category.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
57-12-5	Cyanides (soluble salts and complexes)			10			P030
57-14-7	1,1-Dimethyl hydrazine	1,000	10	10	15,000	313	U098
57-14-7	Dimethylhydrazine	1,000	10	10	15,000	X	U098
57-14-7	Hydrazine, 1,1-dimethyl-	1,000	10	10	15,000	X	U098
57-24-9	Strychnine	100/10,000	10	10			P108
57-24-9	Strychnine, and salts			10			P108
57-33-0	Pentobarbital sodium					313	
57-41-0	Phenytoin					313	
57-47-6	Physostigmine	100/10,000	1*	1*			P204
57-57-8	beta-Propiolactone	500	10	10		313	
57-64-7	Physostigmine, salicylate (1:1)	100/10,000	1*	1*			P188
57-74-9	Chlordane	1,000	1	1		313	U036
57-74-9	4,7-Methanoindan,	1,000	1	1		X	U036
57-97-6	7,12-Dimethylbenz[a]anthracene			1		313+	U094
58-36-6	Phenoxarsine, 10,10'-oxydi-	500/10,000	500				
58-89-9	Cyclohexane,	1,000/10,000	1	1		X	U129
58-89-9	Hexachlorocyclohexane (gamma isomer)	1,000/10,000	1	1		X	U129
58-89-9	Lindane	1,000/10,000	1	1		313	U129
58-90-2	2,3,4,6-Tetrachlorophenol			10			
59-50-7	p-Chloro-m-cresol			5,000			U039
59-88-1	Phenylhydrazine hydrochloride	1,000/10,000	1,000				
59-89-2	N-Nitrosomorpholine			1		313	
60-00-4	Ethylenediamine-tetraacetic acid (EDTA)			5,000			
60-09-3	4-Aminoazobenzene					313	
60-11-7	4-Dimethylaminoazobenzene			10		313	U093
60-11-7	Dimethylaminoazobenzene			10		X	U093
60-29-7	Ethane, 1,1'-oxybis-			100	10,000		U117
60-29-7	Ethyl ether			100	10,000		U117
60-34-4	Hydrazine, methyl-	500	10	10	15,000	X	P068
60-34-4	Methyl hydrazine	500	10	10	15,000	313	P068
60-35-5	Acetamide			100		313	
60-41-3	Strychnine, sulfate	100/10,000	10	10			
60-51-5	Dimethoate	500/10,000	10	10		313	P044
60-57-1	Dieldrin			1			P037
61-82-5	Amitrole			10		313	U011
62-38-4	Phenylmercuric acetate	500/10,000	100	100			P092
62-38-4	Phenylmercury acetate	500/10,000	100	100			P092
62-44-2	Phenacetin			100			U187
62-50-0	Ethyl methanesulfonate			1			U119
62-53-3	Aniline	1,000	5,000	5,000		313	U012
62-55-5	Thioacetamide			10		313	U218
62-56-6	Thiourea			10		313	U219
62-73-7	Dichlorvos	1,000	10	10		313	
62-73-7	Phosphoric acid, 2-dichloroethenyl dimethyl ester	1,000	10	10		X	
62-74-8	Fluoroacetic acid, sodium salt	10/10,000	10	10		X	P058
62-74-8	Sodium fluoroacetate	10/10,000	10	10		313	P058
62-75-9	Methanamine, N-methyl-N-nitroso-	1,000	10	10		X	P082
62-75-9	N-Nitrosodimethylamine	1,000	10	10		313	P082
62-75-9	Nitrosodimethylamine	1,000	10	10		X	P082
63-25-2	Carbaryl			100		313	U279

+ Member of PAC category.

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
63-25-2	1-Naphthalenol, methylcarbamate			100		X	U279
64-00-6	Phenol, 3-(1-methylethyl)-, methylcarbamate	500/10,000	1*	1*			P202
64-18-6	Formic acid			5,000		313	U123
64-19-7	Acetic acid			5,000			
64-67-5	Diethyl sulfate			10		313	
64-75-5	Tetracycline hydrochloride					313	
64-86-8	Colchicine	10/10,000	10				
65-30-5	Nicotine sulfate	100/10,000	100	100			
65-85-0	Benzoic acid			5,000			
66-75-1	Uracil mustard			10			U237
66-81-9	Cycloheximide	100/10,000	100				
67-56-1	Methanol			5,000		313	U154
67-63-0	Isopropyl alcohol (mfg-strong acid process)					313	
67-64-1	Acetone			5,000			U002
67-66-3	Chloroform	10,000	10	10	20,000	313	U044
67-66-3	Methane, trichloro-	10,000	10	10	20,000	X	U044
67-72-1	Hexachloroethane			100		313	U131
68-12-2	Dimethylformamide			100		X	
68-12-2	N,N-Dimethylformamide			100		313	
68-76-8	2,5-Cyclohexadiene-1,4-dione, 2,3,5-tris(1-aziridinyl)-					X	
68-76-8	Triaziquone					313	
70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-			10			U163
70-30-4	Hexachlorophene			100		313	U132
70-69-9	Propiophenone, 4'-amino	100/10,000	100				
71-36-3	n-Butyl alcohol			5,000		313	U031
71-43-2	Benzene			10		313	U019
71-55-6	Methyl chloroform			1,000		X	U226
71-55-6	1,1,1-Trichloroethane			1,000		313	U226
71-63-6	Digitoxin	100/10,000	100				
72-20-8	Endrin	500/10,000	1	1			P051
72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis [4-methoxy-			1		X	U247
72-43-5	Methoxychlor			1		313	U247
72-54-8	DDD			1			U060
72-55-9	DDE			1			
72-57-1	Trypan blue			10		313	U236
74-82-8	Methane				10,000		
74-83-9	Bromomethane	1,000	1,000	1,000		313	U029
74-83-9	Methyl bromide	1,000	1,000	1,000		X	U029
74-84-0	Ethane				10,000		
74-85-1	Ethene				10,000	X	
74-85-1	Ethylene				10,000	313	
74-86-2	Acetylene				10,000		
74-86-2	Ethyne				10,000		
74-87-3	Chloromethane			100	10,000	313	U045
74-87-3	Methane, chloro-			100	10,000	X	U045
74-87-3	Methyl chloride			100	10,000	X	U045
74-88-4	Methyl iodide			100		313	U138
74-89-5	Methanamine			100	10,000		
74-89-5	Monomethylamine			100	10,000		
74-90-8	Hydrocyanic acid	100	10	10	2,500	X	P063

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

Section 304

CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
74-90-8	Hydrogen cyanide	100	10	10	2,500	313	P063
74-93-1	Methanethiol	500	100	100	10,000	X	U153
74-93-1	Methyl mercaptan	500	100	100	10,000	313	U153
74-93-1	Thiomethanol	500	100	100	10,000	X	U153
74-95-3	Methylene bromide			1,000		313	U068
74-98-6	Propane				10,000		
74-99-7	1-Propyne				10,000		
74-99-7	Propyne				10,000		
75-00-3	Chloroethane			100	10,000	313	
75-00-3	Ethane, chloro-			100	10,000	X	
75-00-3	Ethyl chloride			100	10,000	X	
75-01-4	Ethene, chloro-			1	10,000	X	U043
75-01-4	Vinyl chloride			1	10,000	313	U043
75-02-5	Ethene, fluoro-				10,000		
75-02-5	Vinyl fluoride				10,000		
75-04-7	Ethanamine			100	10,000		
75-04-7	Monoethylamine			100	10,000		
75-05-8	Acetonitrile			5,000		313	U003
75-07-0	Acetaldehyde			1,000	10,000	313	U001
75-08-1	Ethanethiol				10,000		
75-08-1	Ethyl mercaptan				10,000		
75-09-2	Dichloromethane			1,000		313	U080
75-09-2	Methylene chloride			1,000		X	U080
75-15-0	Carbon disulfide	10,000	100	100	20,000	313	P022
75-19-4	Cyclopropane				10,000		
75-20-7	Calcium carbide			10			
75-21-8	Ethylene oxide	1,000	10	10	10,000	313	U115
75-21-8	Oxirane	1,000	10	10	10,000	X	U115
75-25-2	Bromoform			100		313	U225
75-25-2	Tribromomethane			100		X	U225
75-27-4	Dichlorobromomethane			5,000		313	
75-28-5	Isobutane				10,000		
75-28-5	Propane, 2-methyl				10,000		
75-29-6	Isopropyl chloride				10,000		
75-29-6	Propane, 2-chloro-				10,000		
75-31-0	Isopropylamine				10,000		
75-31-0	2-Propanamine				10,000		
75-34-3	1,1-Dichloroethane			1,000		X	U076
75-34-3	Ethylidene Dichloride			1,000		313	U076
75-35-4	1,1-Dichloroethylene			100	10,000	X	U078
75-35-4	Ethene, 1,1-dichloro-			100	10,000	X	U078
75-35-4	Vinylidene chloride			100	10,000	313	U078
75-36-5	Acetyl chloride			5,000			U006
75-37-6	Difluoroethane				10,000		
75-37-6	Ethane, 1,1-difluoro-				10,000		
75-38-7	Ethene, 1,1-difluoro-				10,000		
75-38-7	Vinylidene fluoride				10,000		
75-43-4	Dichlorofluoromethane					313	
75-43-4	HCFC-21					X	
75-44-5	Carbonic dichloride	10	10	10	500	X	P095

Section 304

CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
75-44-5	Phosgene	10	10	10	500	313	P095
75-45-6	Chlorodifluoromethane					313	
75-45-6	HCFC-22					X	
75-50-3	Methanamine, N,N-dimethyl-			100	10,000		
75-50-3	Trimethylamine			100	10,000		
75-55-8	Aziridine, 2-methyl	10,000	1	1	10,000	X	P067
75-55-8	Propyleneimine	10,000	1	1	10,000	313	P067
75-56-9	Oxirane, methyl-	10,000	100	100	10,000	X	
75-56-9	Propylene oxide	10,000	100	100	10,000	313	
75-60-5	Cacodylic acid			1			U136
75-63-8	Bromotrifluoromethane					313	
75-63-8	Halon 1301					X	
75-64-9	tert-Butylamine			1,000			
75-65-0	tert-Butyl alcohol					313	
75-68-3	1-Chloro-1,1-difluoroethane					313	
75-68-3	HCFC-142b					X	
75-69-4	CFC-11			5,000		X	U121
75-69-4	Trichlorofluoromethane			5,000		313	U121
75-69-4	Trichloromonofluoromethane			5,000		X	U121
75-71-8	CFC-12			5,000		X	U075
75-71-8	Dichlorodifluoromethane			5,000		313	U075
75-72-9	CFC-13					X	
75-72-9	Chlorotrifluoromethane					313	
75-74-1	Plumbane, tetramethyl-	100	100		10,000		
75-74-1	Tetramethyllead	100	100		10,000		
75-76-3	Silane, tetramethyl-				10,000		
75-76-3	Tetramethylsilane				10,000		
75-77-4	Silane, chlorotrimethyl-	1,000	1,000		10,000		
75-77-4	Trimethylchlorosilane	1,000	1,000		10,000		
75-78-5	Dimethyldichlorosilane	500	500		5,000		
75-78-5	Silane, dichlorodimethyl-	500	500		5,000		
75-79-6	Methyltrichlorosilane	500	500		5,000		
75-79-6	Silane, trichloromethyl-	500	500		5,000		
75-86-5	Acetone cyanohydrin	1,000	10	10		X	P069
75-86-5	2-Methylactonitrile	1,000	10	10		313	P069
75-87-6	Acetaldehyde, trichloro-			5,000			U034
75-88-7	2-Chloro-1,1,1-trifluoroethane					313	
75-88-7	HCFC-133a					X	
75-99-0	2,2-Dichloropropionic acid			5,000			
76-01-7	Pentachloroethane			10		313	U184
76-02-8	Trichloroacetyl chloride	500	500			313	
76-06-2	Chloropicrin					313	
76-13-1	Ethane, 1,1,2-trichloro-1,2,2,-trifluoro-					X	
76-13-1	Freon 113					313	
76-14-2	CFC-114					X	
76-14-2	Dichlorotetrafluoroethane					313	
76-15-3	CFC-115					X	
76-15-3	Monochloropentafluoroethane					313	
76-44-8	Heptachlor			1		313	P059
76-44-8	1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-me			1		X	P059

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
76-87-9	Triphenyltin hydroxide					313	
77-47-4	Hexachlorocyclopentadiene	100	10	10		313	U130
77-73-6	Dicyclopentadiene					313	
77-78-1	Dimethyl sulfate	500	100	100		313	U103
77-81-6	Tabun	10	10				
78-00-2	Tetraethyl lead	100	10	10			P110
78-34-2	Dioxathion	500	500				
78-48-8	DEF					X	
78-48-8	S,S,S-Tributyltrithiophosphate					313	
78-53-5	Amiton	500	500				
78-59-1	Isophorone			5,000			
78-71-7	Oxetane, 3,3-bis(chloromethyl)-	500	500				
78-78-4	Butane, 2-methyl-				10,000		
78-78-4	Isopentane				10,000		
78-79-5	1,3-Butadiene, 2-methyl-			100	10,000		
78-79-5	Isoprene			100	10,000		
78-81-9	iso-Butylamine			1,000			
78-82-0	Isobutyronitrile	1,000	1,000		20,000		
78-82-0	Propanenitrile, 2-methyl-	1,000	1,000		20,000		
78-83-1	Isobutyl alcohol			5,000			U140
78-84-2	Isobutyraldehyde					313	
78-87-5	1,2-Dichloropropane			1,000		313	U083
78-87-5	Propane 1,2-dichloro-			1,000		X	U083
78-88-6	2,3-Dichloropropene			100		313	
78-92-2	sec-Butyl alcohol					313	
78-93-3	Methyl ethyl ketone			5,000		313	U159
78-93-3	Methyl ethyl ketone (MEK)			5,000		X	U159
78-94-4	Methyl vinyl ketone	10	10				
78-97-7	Lactonitrile	1,000	1,000				
78-99-9	1,1-Dichloropropane			1,000			
79-00-5	1,1,2-Trichloroethane			100		313	U227
79-01-6	Trichloroethylene			100		313	U228
79-06-1	Acrylamide	1,000/10,000	5,000	5,000		313	U007
79-09-4	Propionic acid			5,000			
79-10-7	Acrylic acid			5,000		313	U008
79-11-8	Chloroacetic acid	100/10,000	100	100		313	
79-19-6	Thiosemicarbazide	100/10,000	100	100		313	P116
79-21-0	Ethaneperoxoic acid	500	500		10,000	X	
79-21-0	Peracetic acid	500	500		10,000	313	
79-22-1	Carbonochloridic acid, methylester	500	1,000	1,000	5,000	X	U156
79-22-1	Methyl chlorocarbonate	500	1,000	1,000	5,000	313	U156
79-22-1	Methyl chloroformate	500	1,000	1,000	5,000	X	U156
79-31-2	iso-Butyric acid			5,000			
79-34-5	1,1,2,2-Tetrachloroethane			100		313	U209
79-38-9	Ethene, chlorotrifluoro-				10,000		
79-38-9	Trifluorochloroethylene				10,000		
79-44-7	Dimethylcarbamyl chloride			1		313	U097
79-46-9	2-Nitropropane			10		313	U171
80-05-7	4,4'-Isopropylidenediphenol					313	
80-15-9	Cumene hydroperoxide			10		313	U096

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-			10		X	U096
80-62-6	Methyl methacrylate			1,000		313	U162
80-63-7	Methyl 2-chloroacrylate	500	500				
81-07-2	Saccharin (manufacturing)			100		313	U202
81-07-2	Saccharin and salts			100			U202
81-81-2	Warfarin	500/10,000	100	100		X	P001
81-81-2	Warfarin, & salts, conc.>0.3%			100		X	P001
81-88-9	C.I. Food Red 15					313	
82-28-0	1-Amino-2-methylantraquinone					313	
82-66-6	Diphacinone	10/10,000	10				
82-68-8	PCNB			100		X	U185
82-68-8	Pentachloronitrobenzene			100		X	U185
82-68-8	Quintozene			100		313	U185
83-32-9	Acenaphthene			100			
84-66-2	Diethyl phthalate			1,000			U088
84-74-2	n-Butyl phthalate			10		X	U069
84-74-2	Dibutyl phthalate			10		313	U069
85-00-7	Diquat			1,000			
85-01-8	Phenanthrene			5,000		313	
85-44-9	Phthalic anhydride			5,000		313	U190
85-68-7	Butyl benzyl phthalate			100			
86-30-6	N-Nitrosodiphenylamine			100		313	
86-50-0	Azinphos-methyl	10/10,000	1	1			
86-50-0	Guthion	10/10,000	1	1			
86-73-7	Fluorene			5,000			
86-88-4	ANTU	500/10,000	100	100			P072
86-88-4	Thiourea, 1-naphthalenyl-	500/10,000	100	100			P072
87-62-7	2,6-Xylidine					313	
87-65-0	2,6-Dichlorophenol			100			U082
87-68-3	Hexachloro-1,3-butadiene			1		313	U128
87-68-3	Hexachlorobutadiene			1		X	U128
87-86-5	PCP			10		X	
87-86-5	Pentachlorophenol			10		313	
88-05-1	Aniline, 2,4,6-trimethyl-	500	500				
88-06-2	2,4,6-Trichlorophenol			10		313	
88-72-2	o-Nitrotoluene			1,000			
88-75-5	2-Nitrophenol			100		313	
88-85-7	Dinitrobutyl phenol	100/10,000	1,000	1,000		313	P020
88-85-7	Dinoseb	100/10,000	1,000	1,000		X	P020
88-89-1	Picric acid					313	
90-04-0	o-Anisidine			100		313	
90-43-7	2-Phenylphenol					313	
90-94-8	Michler's ketone					313	
91-08-7	Benzene, 1,3-diisocyanato-2-methyl-	100	100	100	10,000	X	
91-08-7	Toluene-2,6-diisocyanate	100	100	100	10,000	313	
91-20-3	Naphthalene			100		313	U165
91-22-5	Quinoline			5,000		313	
91-58-7	2-Chloronaphthalene			5,000			U047
91-59-8	beta-Naphthylamine			10		313	U168
91-66-7	N,N-Diethylaniline			1,000			

Section 304							
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
91-80-5	Methapyrilene			5,000			U155
91-93-0	3,3'-Dimethoxybenzidine-4,4'-diisocyanate					313#	
91-94-1	3,3'-Dichlorobenzidine			1		313	U073
91-97-4	3,3'-Dimethyl-4,4'-diphenylene diisocyanate					313#	
92-52-4	Biphenyl			100		313	
92-67-1	4-Aminobiphenyl			1		313	
92-87-5	Benzidine			1		313	U021
92-93-3	4-Nitrobiphenyl			10		313	
93-65-2	Mecoprop					313	
93-72-1	Silvex (2,4,5-TP)			100			
93-76-5	2,4,5-T acid			1,000			
93-79-8	2,4,5-T esters			1,000			
94-11-1	2,4-D Esters			100		X	
94-11-1	2,4-D isopropyl ester			100		313	
94-36-0	Benzoyl peroxide					313	
94-58-6	Dihydrosafrole			10		313	U090
94-59-7	Safrole			100		313	U203
94-74-6	(4-Chloro-2-methylphenoxy) acetic acid					X	
94-74-6	MCPA					X	
94-74-6	Methoxone					313	
94-75-7	Acetic acid, (2,4-dichlorophenoxy)-			100		X	U240
94-75-7	2,4-D			100		313	U240
94-75-7	2,4-D Acid			100		X	U240
94-75-7	2,4-D, salts and esters			100			U240
94-79-1	2,4-D Esters			100			
94-80-4	2,4-D butyl ester			100		313	
94-80-4	2,4-D Esters			100		X	
94-82-6	2,4-DB					313	
95-47-6	Benzene, o-dimethyl-			1,000		X	U239
95-47-6	o-Xylene			1,000		313	U239
95-48-7	o-Cresol	1,000/10,000	100	100		313	U052
95-50-1	o-Dichlorobenzene			100		X	U070
95-50-1	1,2-Dichlorobenzene			100		313	U070
95-53-4	o-Toluidine			100		313	U328
95-54-5	1,2-Phenylenediamine					313	
95-57-8	2-Chlorophenol			100			U048
95-63-6	1,2,4-Trimethylbenzene					313	
95-69-2	p-Chloro-o-toluidine					313	
95-80-7	2,4-Diaminotoluene			10		313	
95-94-3	1,2,4,5-Tetrachlorobenzene			5,000			U207
95-95-4	2,4,5-Trichlorophenol			10		313	
96-09-3	Styrene oxide			100		313	
96-12-8	DBCP			1		X	U066
96-12-8	1,2-Dibromo-3-chloropropane			1		313	U066
96-18-4	1,2,3-Trichloropropane					313	
96-33-3	Methyl acrylate					313	
96-45-7	Ethylene thiourea			10		313	U116
97-23-4	Dichlorophene					313	
97-23-4	2,2'-Methylenebis(4-chlorophenol					X	
97-56-3	C.I. Solvent Yellow 3					313	

Member of diisocyanate category.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
97-63-2	Ethyl methacrylate			1,000			U118
98-01-1	Furfural			5,000			U125
98-05-5	Benzenearsonic acid	10/10,000	10				
98-07-7	Benzoic trichloride	100	10	10		313	U023
98-07-7	Benzotrichloride	100	10	10		X	U023
98-09-9	Benzenesulfonyl chloride			100			U020
98-13-5	Trichlorophenylsilane	500	500				
98-16-8	Benzenamine, 3-(trifluoromethyl)-	500	500				
98-82-8	Cumene			5,000		313	U055
98-86-2	Acetophenone			5,000		313	U004
98-87-3	Benzal chloride	500	5,000	5,000		313	U017
98-88-4	Benzoyl chloride			1,000		313	
98-95-3	Nitrobenzene	10,000	1,000	1,000		313	U169
99-08-1	m-Nitrotoluene			1,000			
99-30-9	Dichloran					313	
99-30-9	2,6-Dichloro-4-nitroaniline					X	
99-35-4	1,3,5-Trinitrobenzene			10			U234
99-55-8	5-Nitro-o-toluidine			100		313	U181
99-59-2	5-Nitro-o-anisidine					313	
99-65-0	m-Dinitrobenzene			100		313	
99-98-9	Dimethyl-p-phenylenediamine	10/10,000	10				
99-99-0	p-Nitrotoluene			1,000			
100-01-6	p-Nitroaniline			5,000		313	P077
100-02-7	p-Nitrophenol			100		X	U170
100-02-7	4-Nitrophenol			100		313	U170
100-14-1	Benzene, 1-(chloromethyl)-4-nitro-	500/10,000	500				
100-25-4	p-Dinitrobenzene			100		313	
100-41-4	Ethylbenzene			1,000		313	
100-42-5	Styrene			1,000		313	
100-44-7	Benzyl chloride	500	100	100		313	P028
100-47-0	Benzonitrile			5,000			
100-75-4	N-Nitrosopiperidine			10		313	U179
101-05-3	Anilazine					313	
101-05-3	4,6-Dichloro-N-(2-chlorophenyl)-1,3,5-triazin-2-amine					X	
101-14-4	MBOCA			10		X	U158
101-14-4	4,4'-Methylenebis(2-chloroaniline)			10		313	U158
101-27-9	Barban			1*			U280
101-55-3	4-Bromophenyl phenyl ether			100			U030
101-61-1	4,4'-Methylenebis(N,N-dimethyl)benzenamine					313	
101-68-8	MDI			5,000		X	
101-68-8	Methylenebis(phenylisocyanate)			5,000		313#	
101-77-9	4,4'-Methylenedianiline			10		313	
101-80-4	4,4'-Diaminodiphenyl ether					313	
101-90-6	Diglycidyl resorcinol ether					313	
102-36-3	Isocyanic acid, 3,4-dichlorophenyl ester	500/10,000	500				
103-85-5	Phenylthiourea	100/10,000	100	100			P093
104-12-1	p-Chlorophenyl isocyanate					313	
104-49-4	1,4-Phenylene diisocyanate					313#	
104-94-9	p-Anisidine					313	
105-46-4	sec-Butyl acetate			5,000			

Member of diisocyanate category.

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
105-60-2	Caprolactam			5,000			
105-67-9	2,4-Dimethylphenol			100		313	U101
106-42-3	Benzene, p-dimethyl-			100		X	U239
106-42-3	p-Xylene			100		313	U239
106-44-5	p-Cresol			100		313	U052
106-46-7	1,4-Dichlorobenzene			100		313	U072
106-47-8	p-Chloroaniline			1,000		313	P024
106-49-0	p-Toluidine			100			U353
106-50-3	p-Phenylenediamine			5,000		313	
106-51-4	p-Benzoquinone			10		X	U197
106-51-4	Quinone			10		313	U197
106-88-7	1,2-Butylene oxide			100		313	
106-89-8	Epichlorohydrin	1,000	100	100	20,000	313	U041
106-89-8	Oxirane, (chloromethyl)-	1,000	100	100	20,000	X	U041
106-93-4	1,2-Dibromoethane			1		313	U067
106-93-4	Ethylene dibromide			1		X	U067
106-96-7	Propargyl bromide	10	10				
106-97-8	Butane				10,000		
106-98-9	1-Butene				10,000		
106-99-0	1,3-Butadiene			10	10,000	313	
107-00-6	1-Butyne				10,000		
107-00-6	Ethyl acetylene				10,000		
107-01-7	2-Butene				10,000		
107-02-8	Acrolein	500	1	1	5,000	313	P003
107-02-8	2-Propenal	500	1	1	5,000	X	P003
107-05-1	Allyl chloride			1,000		313	
107-06-2	1,2-Dichloroethane			100		313	U077
107-06-2	Ethylene dichloride			100		X	U077
107-07-3	Chloroethanol	500	500				
107-10-8	n-Propylamine			5,000			U194
107-11-9	Allylamine	500	500		10,000	313	
107-11-9	2-Propen-1-amine	500	500		10,000	X	
107-12-0	Ethyl cyanide	500	10	10	10,000		P101
107-12-0	Propanenitrile	500	10	10	10,000		P101
107-12-0	Propionitrile	500	10	10	10,000		P101
107-13-1	Acrylonitrile	10,000	100	100	20,000	313	U009
107-13-1	2-Propenenitrile	10,000	100	100	20,000	X	U009
107-15-3	1,2-Ethanediamine	10,000	5,000	5,000	20,000		
107-15-3	Ethylenediamine	10,000	5,000	5,000	20,000		
107-16-4	Formaldehyde cyanohydrin	1,000	1,000				
107-18-6	Allyl alcohol	1,000	100	100	15,000	313	P005
107-18-6	2-Propen-1-ol	1,000	100	100	15,000	X	P005
107-19-7	Propargyl alcohol			1,000		313	P102
107-20-0	Chloroacetaldehyde			1,000			P023
107-21-1	Ethylene glycol			5,000		313	
107-25-5	Ethene, methoxy-				10,000		
107-25-5	Vinyl methyl ether				10,000		
107-30-2	Chloromethyl methyl ether	100	10	10	5,000	313	U046
107-30-2	Methane, chloromethoxy-	100	10	10	5,000	X	U046
107-31-3	Formic acid, methyl ester				10,000		

Section 304

CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
107-31-3	Methyl formate				10,000		
107-44-8	Sarin	10	10				
107-49-3	TEPP	100	10	10			P111
107-49-3	Tetraethyl pyrophosphate	100	10	10			P111
107-92-6	Butyric acid			5,000			
108-05-4	Acetic acid ethenyl ester	1,000	5,000	5,000	15,000	X	
108-05-4	Vinyl acetate	1,000	5,000	5,000	15,000	313	
108-05-4	Vinyl acetate monomer	1,000	5,000	5,000	15,000	X	
108-10-1	Methyl isobutyl ketone			5,000		313	U161
108-23-6	Carbonochloridic acid, 1-methylethyl ester	1,000	1,000		15,000		
108-23-6	Isopropyl chloroformate	1,000	1,000		15,000		
108-24-7	Acetic anhydride			5,000			
108-31-6	Maleic anhydride			5,000		313	U147
108-38-3	Benzene, m-dimethyl-			1,000		X	U239
108-38-3	m-Xylene			1,000		313	U239
108-39-4	m-Cresol			100		313	U052
108-45-2	1,3-Phenylenediamine					313	
108-46-3	Resorcinol			5,000			U201
108-60-1	Bis(2-chloro-1-methylethyl)ether			1,000		313	U027
108-60-1	Dichloroisopropyl ether			1,000		X	U027
108-88-3	Toluene			1,000		313	U220
108-90-7	Chlorobenzene			100		313	U037
108-91-8	Cyclohexanamine	10,000	10,000		15,000		
108-91-8	Cyclohexylamine	10,000	10,000		15,000		
108-93-0	Cyclohexanol					313	
108-94-1	Cyclohexanone			5,000			U057
108-95-2	Phenol	500/10,000	1,000	1,000		313	U188
108-98-5	Benzenethiol	500	100	100			P014
108-98-5	Thiophenol	500	100	100			P014
109-06-8	2-Methylpyridine			5,000		313	U191
109-06-8	2-Picoline			5,000		X	U191
109-61-5	Carbonochloridic acid, propylester	500	500		15,000		
109-61-5	Propyl chloroformate	500	500		15,000		
109-66-0	Pentane				10,000		
109-67-1	1-Pentene				10,000		
109-73-9	Butylamine			1,000			
109-77-3	Malononitrile	500/10,000	1,000	1,000		313	U149
109-86-4	2-Methoxyethanol					313	
109-89-7	Diethylamine			100			
109-92-2	Ethene, ethoxy-				10,000		
109-92-2	Vinyl ethyl ether				10,000		
109-95-5	Ethyl nitrite				10,000		
109-95-5	Nitrous acid, ethyl ester				10,000		
109-99-9	Furan, tetrahydro-			1,000			U213
110-00-9	Furan	500	100	100	5,000		U124
110-16-7	Maleic acid			5,000			
110-17-8	Fumaric acid			5,000			
110-19-0	iso-Butyl acetate			5,000			
110-54-3	Hexane			5,000		X	
110-54-3	n-Hexane			5,000		313	

Section 304							
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
110-57-6	trans-1,4-Dichloro-2-butene	500	500			313	
110-57-6	trans-1,4-Dichlorobutene	500	500			X	
110-75-8	2-Chloroethyl vinyl ether			1,000			U042
110-80-5	Ethanol, 2-ethoxy-			1,000		X	U359
110-80-5	2-Ethoxyethanol			1,000		313	U359
110-82-7	Cyclohexane			1,000		313	U056
110-86-1	Pyridine			1,000		313	U196
110-89-4	Piperidine	1,000	1,000		15,000		
111-42-2	Diethanolamine			100		313	
111-44-4	Bis(2-chloroethyl) ether	10,000	10	10		313	U025
111-44-4	Dichloroethyl ether	10,000	10	10		X	U025
111-54-6	Ethylenebisdithiocarbamic acid, salts & esters			5,000		X	U114
111-69-3	Adiponitrile	1,000	1,000				
111-91-1	Bis(2-chloroethoxy) methane			1,000		313	U024
114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate			100		X	U411
114-26-1	Propoxur			100		313	U411
115-02-6	Azaserine			1			U015
115-07-1	Propene				10,000	X	
115-07-1	1-Propene				10,000	X	
115-07-1	Propylene				10,000	313	
115-10-6	Methane, oxybis-				10,000		
115-10-6	Methyl ether				10,000		
115-11-7	2-Methylpropene				10,000		
115-11-7	1-Propene, 2-methyl-				10,000		
115-21-9	Trichloroethylsilane	500	500				
115-26-4	Dimefox	500	500				
115-28-6	Chlorendic acid					313	
115-29-7	Endosulfan	10/10,000	1	1			P050
115-32-2	Benzenemethanol,			10		X	
115-32-2	Dicofol			10		313	
115-90-2	Fensulfothion	500	500				
116-06-3	Aldicarb	100/10,000	1	1		313	P070
116-14-3	Ethene, tetrafluoro-				10,000		
116-14-3	Tetrafluoroethylene				10,000		
117-79-3	2-Aminoanthraquinone					313	
117-80-6	Dichlone			1			
117-81-7	Bis(2-ethylhexyl)phthalate			100		X	U028
117-81-7	DEHP			100		X	U028
117-81-7	Di(2-ethylhexyl) phthalate			100		313	U028
117-84-0	n-Dioctylphthalate			5,000			U107
117-84-0	Di-n-octyl phthalate			5,000			U107
118-74-1	Hexachlorobenzene			10		313	U127
118-79-6	2,4,6-Tribromophenol			100			U408
119-38-0	Isopropylmethylpyrazolyl dimethylcarbamate	500	1*	1*			P192
119-90-4	3,3'-Dimethoxybenzidine			100		313	U091
119-93-7	3,3'-Dimethylbenzidine			10		313	U095
119-93-7	o-Tolidine			10		X	U095
120-12-7	Anthracene			5,000		313	
120-36-5	2,4-DP					313	
120-58-1	Isosafrole			100		313	U141

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
120-71-8	p-Cresidine					313	
120-80-9	Catechol			100		313	
120-82-1	1,2,4- Trichlorobenzene			100		313	
120-83-2	2,4-Dichlorophenol			100		313	U081
121-14-2	2,4-Dinitrotoluene			10		313	U105
121-21-1	Pyrethrins			1			
121-29-9	Pyrethrins			1			
121-44-8	Triethylamine			5,000		313	U404
121-69-7	N,N-Dimethylaniline			100		313	
121-75-5	Malathion			100		313	
122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-			5,000			P046
122-34-9	Simazine					313	
122-39-4	Diphenylamine					313	
122-42-9	Propham			1*			U373
122-66-7	1,2-Diphenylhydrazine			10		313	U109
122-66-7	Hydrazine, 1,2-diphenyl-			10		X	U109
122-66-7	Hydrazobenzene			10		X	U109
123-31-9	Hydroquinone	500/10,000	100	100		313	
123-33-1	Maleic hydrazide			5,000			U148
123-38-6	Propionaldehyde			1,000		313	
123-61-5	1,3-Phenylene diisocyanate					313#	
123-62-6	Propionic anhydride			5,000			
123-63-7	Paraldehyde			1,000		313	U182
123-72-8	Butyraldehyde					313	
123-73-9	2-Butenal, (e)-	1,000	100	100	20,000		U053
123-73-9	Crotonaldehyde, (E)-	1,000	100	100	20,000		U053
123-86-4	Butyl acetate			5,000			
123-91-1	1,4-Dioxane			100		313	U108
123-92-2	iso-Amyl acetate			5,000			
124-04-9	Adipic acid			5,000			
124-40-3	Dimethylamine			1,000	10,000	313	U092
124-40-3	Methanamine, N-methyl-			1,000	10,000	X	U092
124-41-4	Sodium methylate			1,000			
124-48-1	Chlorodibromomethane			100			
124-65-2	Sodium cacodylate	100/10,000	100				
124-73-2	Dibromotetrafluoroethane					313	
124-73-2	Halon 2402					X	
124-87-8	Picrotoxin	500/10,000	500				
126-72-7	Tris(2,3-dibromopropyl) phosphate			10		313	U235
126-98-7	Methacrylonitrile	500	1,000	1,000	10,000	313	U152
126-98-7	2-Propenenitrile, 2-methyl-	500	1,000	1,000	10,000	X	U152
126-99-8	Chloroprene			100		313	
127-18-4	Perchloroethylene			100		X	U210
127-18-4	Tetrachloroethylene			100		313	U210
127-82-2	Zinc phenolsulfonate			5,000			
128-03-0	Potassium dimethyldithiocarbamate					313	
128-04-1	Sodium dimethyldithiocarbamate					313	
128-66-5	C.I. Vat Yellow 4					313	
129-00-0	Pyrene	1,000/10,000	5,000	5,000			
129-06-6	Warfarin sodium	100/10,000	100	100			

Member of diisocyanate category.

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

Section 304							
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
130-15-4	1,4-Naphthoquinone			5,000			U166
131-11-3	Dimethyl phthalate			5,000		313	U102
131-52-2	Sodium pentachlorophenate					313	
131-74-8	Ammonium picrate			10			P009
131-89-5	2-Cyclohexyl-4,6-dinitrophenol			100			P034
132-27-4	Sodium o-phenylphenoxide					313	
132-64-9	Dibenzofuran			100		313	
133-06-2	Captan			10		313	
133-06-2	1H-Isoindole-1,3(2H)-dione,			10		X	
133-07-3	Folpet					313	
133-90-4	Benzoic acid, 3-amino-2,5-dichloro-			100		X	
133-90-4	Chloramben			100		313	
134-29-2	o-Anisidine hydrochloride					313	
134-32-7	alpha-Naphthylamine			100		313	U167
135-20-6	Benzeneamine, N-hydroxy-N-nitroso, ammonium salt					X	
135-20-6	Cupferron					313	
136-45-8	Dipropyl isocinchomeronate					313	
137-26-8	Thiram			10		313	U244
137-30-4	Ziram			1*			P205
137-41-7	Potassium N-methyldithiocarbamate					313	
137-42-8	Metham sodium					313	
137-42-8	Sodium methyldithiocarbamate					X	
138-93-2	Disodium cyanodithioimidocarbonate					313	
139-13-9	Nitrilotriacetic acid					313	
139-25-3	3,3'-Dimethyldiphenylmethane-4,4'-diisocyanate					313#	
139-65-1	4,4'-Thiodianiline					313	
140-29-4	Benzyl cyanide	500	500				
140-76-1	Pyridine, 2-methyl-5-vinyl-	500	500				
140-88-5	Ethyl acrylate			1,000		313	U113
141-32-2	Butyl acrylate					313	
141-66-2	Dicrotophos	100	100				
141-78-6	Ethyl acetate			5,000			U112
142-28-9	1,3-Dichloropropane			5,000			
142-59-6	Nabam					313	
142-71-2	Cupric acetate			100			
142-84-7	Dipropylamine			5,000			U110
143-33-9	Sodium cyanide (Na(CN))	100	10	10			P106
143-50-0	Kepone			1			U142
144-49-0	Fluoroacetic acid	10/10,000	10				
145-73-3	Endothall			1,000			P088
148-79-8	Thiabendazole					313	
148-79-8	2-(4-Thiazolyl)-1H-benzimidazole					X	
148-82-3	Melphalan			1			U150
149-30-4	MBT					X	
149-30-4	2-Mercaptobenzothiazole					313	
149-74-6	Dichloromethylphenylsilane	1,000	1,000				
150-50-5	Merphos					313	
150-68-5	Monuron					313	
151-38-2	Methoxyethylmercuric acetate	500/10,000	500				
151-50-8	Potassium cyanide	100	10	10			P098

Member of diisocyanate category.

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
151-56-4	Aziridine	500	1	1	10,000	X	P054
151-56-4	Ethyleneimine	500	1	1	10,000	313	P054
152-16-9	Diphosphoramidate, octamethyl-	100	100	100			P085
156-10-5	p-Nitrosodiphenylamine					313	
156-60-5	1,2-Dichloroethylene			1,000			U079
156-62-7	Calcium cyanamide			1,000		313	
189-55-9	Benzo(rst)pentaphene			10		313+	U064
189-55-9	Dibenz[a,i]pyrene			10		X	U064
189-64-0	Dibenzo(a,h)pyrene					313+	
191-24-2	Benzo[ghi]perylene			5,000			
191-30-0	Dibenzo(a,l)pyrene					313+	
192-65-4	Dibenzo(a,e)pyrene					313+	
193-39-5	Indeno(1,2,3-cd)pyrene			100		313+	U137
194-59-2	7H-Dibenzo(c,g)carbazole					313+	
205-82-3	Benzo(j)fluoranthene					313+	
205-99-2	Benzo[b]fluoranthene			1		313+	
206-44-0	Fluoranthene			100			U120
207-08-9	Benzo(k)fluoranthene			5,000		313+	
208-96-8	Acenaphthylene			5,000			
218-01-9	Benzo(a)phenanthrene			100		313+	U050
218-01-9	Chrysene			100		X	U050
224-42-0	Dibenz(a,j)acridine					313+	
225-51-4	Benzo[c]acridine			100			U016
226-36-8	Dibenz(a,h)acridine					313+	
297-78-9	Isobenzan	100/10,000	100				
297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate	500	100	100			P040
297-97-2	Thionazin	500	100	100			P040
298-00-0	Methyl parathion	100/10,000	100	100		313	P071
298-00-0	Parathion-methyl	100/10,000	100	100		X	P071
298-02-2	Phorate	10	10	10			P094
298-04-4	Disulfoton	500	1	1			P039
300-62-9	Amphetamine	1,000	1,000				
300-76-5	Naled			10		313	
301-04-2	Lead acetate			10			U144
301-12-2	S-(2-(Ethylsulfinyl)ethyl) O,O-dimethyl ester phosphor					X	
301-12-2	Oxydemeton methyl					313	
302-01-2	Hydrazine	1,000	1	1	15,000	313	U133
303-34-4	Lasiocarpine			10			U143
305-03-3	Chlorambucil			10			U035
306-83-2	2,2-Dichloro-1,1,1-trifluoroethane					313	
306-83-2	HCFC-123					X	
309-00-2	Aldrin	500/10,000	1	1		313	P004
309-00-2	1,4:5,8-Dimethanonaphthalene,	500/10,000	1	1		X	P004
311-45-5	Diethyl-p-nitrophenyl phosphate			100			P041
314-40-9	Bromacil					313	
314-40-9	5-Bromo-6-methyl-3-(1-methylpropyl)-2,4-(1H,3H)-py					X	
315-18-4	Mexacarbate	500/10,000	1,000	1,000			P128
316-42-7	Emetine, dihydrochloride	1/10,000	1				
319-84-6	alpha-BHC			10		X	
319-84-6	alpha-Hexachlorocyclohexane			10		313	

+ Member of PAC category.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
319-85-7	beta-BHC			1			
319-86-8	delta-BHC			1			
327-98-0	Trichloronate	500	500				
329-71-5	2,5-Dinitrophenol			10			
330-54-1	Diuron			100		313	
330-55-2	Linuron					313	
333-41-5	Diazinon			1		313	
334-88-3	Diazomethane			100		313	
353-42-4	Boron trifluoride compound with methyl ether (1:1)	1,000	1,000		15,000		
353-42-4	Boron, trifluoro[oxybis[methane]]-, (T-4)-	1,000	1,000		15,000		
353-50-4	Carbonic difluoride			1,000			U033
353-59-3	Bromochlorodifluoromethane					313	
353-59-3	Halon 1211					X	
354-11-0	HCFC-121a					X	
354-11-0	1,1,1,2-Tetrachloro-2-fluoroethane					313	
354-14-3	HCFC-121					X	
354-14-3	1,1,2,2-Tetrachloro-1-fluoroethane					313	
354-23-4	1,2-Dichloro-1,1,2-trifluoroethane					313	
354-23-4	HCFC-123a					X	
354-25-6	1-Chloro-1,1,2,2-tetrafluoroethane					313	
354-25-6	HCFC-124a					X	
357-57-3	Brucine			100		313	P018
359-06-8	Fluoroacetyl chloride	10	10				
371-62-0	Ethylene fluorohydrin	10	10				
379-79-3	Ergotamine tartrate	500/10,000	500				
422-44-6	1,2-Dichloro-1,1,2,3,3-pentafluoropropane					313	
422-44-6	HCFC-225bb					X	
422-48-0	2,3-Dichloro-1,1,1,2,3-pentafluoropropane					313	
422-48-0	HCFC-225ba					X	
422-56-0	3,3-Dichloro-1,1,1,2,2-pentafluoropropane					313	
422-56-0	HCFC-225ca					X	
431-86-7	1,2-Dichloro-1,1,3,3,3-pentafluoropropane					313	
431-86-7	HCFC-225da					X	
460-19-5	Cyanogen			100	10,000		P031
460-19-5	Ethanedinitrile			100	10,000		P031
460-35-5	3-Chloro-1,1,1-trifluoropropane					313	
460-35-5	HCFC-253fb					X	
463-49-0	1,2-Propadiene				10,000		
463-49-0	Propadiene				10,000		
463-58-1	Carbon oxide sulfide (COS)			100	10,000	X	
463-58-1	Carbonyl sulfide			100	10,000	313	
463-82-1	2,2-Dimethylpropane				10,000		
463-82-1	Propane, 2,2-dimethyl-				10,000		
465-73-6	Isodrin	100/10,000	1	1		313	P060
470-90-6	Chlorfenvinfos	500	500				
492-80-8	Auramine			100		X	U014
492-80-8	C.I. Solvent Yellow 34			100		313	U014
494-03-1	Chlornaphazine			100			U026
496-72-0	Diaminotoluene			10			U221
502-39-6	Methylmercuric dicyanamide	500/10,000	500				

Section 304

CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
504-24-5	4-Aminopyridine	500/10,000	1,000	1,000			P008
504-24-5	Pyridine, 4-amino-	500/10,000	1,000	1,000			P008
504-60-9	1,3-Pentadiene			100	10,000		U186
505-60-2	Ethane, 1,1'-thiobis[2-chloro-	500	500			X	
505-60-2	Mustard gas	500	500			313	
506-61-6	Potassium silver cyanide	500	1	1			P099
506-64-9	Silver cyanide			1			P104
506-68-3	Cyanogen bromide	500/10,000	1,000	1,000			U246
506-77-4	Cyanogen chloride			10	10,000		P033
506-77-4	Cyanogen chloride ((CN)Cl)			10	10,000		P033
506-78-5	Cyanogen iodide	1,000/10,000	1,000				
506-87-6	Ammonium carbonate			5,000			
506-96-7	Acetyl bromide			5,000			
507-55-1	1,3-Dichloro-1,1,2,2,3-pentafluoropropane					313	
507-55-1	HCFC-225cb					X	
509-14-8	Methane, tetranitro-	500	10	10	10,000		P112
509-14-8	Tetranitromethane	500	10	10	10,000		P112
510-15-6	Benzeneacetic acid,			10		X	U038
510-15-6	Chlorobenzilate			10		313	U038
513-49-5	sec-Butylamine			1,000			
514-73-8	Dithiazanine iodide	500/10,000	500				
528-29-0	o-Dinitrobenzene			100		313	
532-27-4	2-Chloroacetophenone			100		313	
533-74-4	Dazomet					313	
533-74-4	Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione					X	
534-07-6	Bis(chloromethyl) ketone	10/10,000	10				
534-52-1	4,6-Dinitro-o-cresol	10/10,000	10	10		313	P047
534-52-1	Dinitrocresol	10/10,000	10	10		X	P047
534-52-1	4,6-Dinitro-o-cresol and salts			10			P047
535-89-7	Crimidine	100/10,000	100				
538-07-8	Ethylbis(2-chloroethyl)amine	500	500				
540-59-0	1,2-Dichloroethylene					313	
540-73-8	Hydrazine, 1,2-dimethyl-			1			U099
540-84-1	2,2,4-Trimethylpentane			1,000			
540-88-5	tert-Butyl acetate			5,000			
541-09-3	Uranyl acetate			100			
541-25-3	Lewisite	10	10				
541-41-3	Ethyl chloroformate					313	
541-53-7	Dithiobiuret	100/10,000	100	100		X	P049
541-53-7	2,4-Dithiobiuret	100/10,000	100	100		313	P049
541-73-1	1,3-Dichlorobenzene			100		313	U071
542-62-1	Barium cyanide			10			P013
542-75-6	1,3-Dichloropropene			100		X	U084
542-75-6	1,3-Dichloropropylene			100		313	U084
542-76-7	3-Chloropropionitrile	1,000	1,000	1,000		313	P027
542-76-7	Propionitrile, 3-chloro-	1,000	1,000	1,000		X	P027
542-88-1	Bis(chloromethyl) ether	100	10	10	1,000	313	P016
542-88-1	Chloromethyl ether	100	10	10	1,000	X	P016
542-88-1	Dichloromethyl ether	100	10	10	1,000	X	P016
542-88-1	Methane, oxybis[chloro-	100	10	10	1,000	X	P016

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
542-90-5	Ethylthiocyanate	10,000	10,000				
543-90-8	Cadmium acetate			10			
544-18-3	Cobaltous formate			1,000			
544-92-3	Copper cyanide			10			P029
554-13-2	Lithium carbonate					313	
554-84-7	m-Nitrophenol			100			
555-77-1	Tris(2-chloroethyl)amine	100	100				
556-61-6	Isothiocyanatomethane	500	500			X	
556-61-6	Methyl isothiocyanate	500	500			313	
556-64-9	Methyl thiocyanate	10,000	10,000		20,000		
556-64-9	Thiocyanic acid, methyl ester	10,000	10,000		20,000		
557-19-7	Nickel cyanide			10			P074
557-21-1	Zinc cyanide			10			P121
557-34-6	Zinc acetate			1,000			
557-41-5	Zinc formate			1,000			
557-98-2	2-Chloropropylene				10,000		
557-98-2	1-Propene, 2-chloro-				10,000		
558-25-8	Methanesulfonyl fluoride	1,000	1,000				
563-12-2	Ethion	1,000	10	10			
563-41-7	Semicarbazide hydrochloride	1,000/10,000	1,000				
563-45-1	3-Methyl-1-butene				10,000		
563-46-2	2-Methyl-1-butene				10,000		
563-47-3	3-Chloro-2-methyl-1-propene					313	
563-68-8	Thallium(I) acetate			100			U214
569-64-2	C.I. Basic Green 4					313	
573-56-8	2,6-Dinitrophenol			10			
584-84-9	Benzene, 2,4-diisocyanato-1-methyl-	500	100	100	10,000	X	
584-84-9	Toluene-2,4-diisocyanate	500	100	100	10,000	313	
590-18-1	2-Butene-cis				10,000		
590-21-6	1-Chloropropylene				10,000		
590-21-6	1-Propene, 1-chloro-				10,000		
591-08-2	1-Acetyl-2-thiourea			1,000			P002
592-01-8	Calcium cyanide			10			P021
592-04-1	Mercuric cyanide			1			
592-85-8	Mercuric thiocyanate			10			
592-87-0	Lead thiocyanate			10			
593-60-2	Vinyl bromide			100		313	
594-42-3	Methanesulfonyl chloride, trichloro-	500	100	100	10,000	X	
594-42-3	Perchloromethyl mercaptan	500	100	100	10,000	313	
594-42-3	Trichloromethanesulfonyl chloride	500	100	100	10,000	X	
597-64-8	Tetraethyltin	100	100				
598-31-2	Bromoacetone			1,000			P017
598-73-2	Bromotrifluoroethylene				10,000		
598-73-2	Ethene, bromotrifluoro-				10,000		
606-20-2	2,6-Dinitrotoluene			100		313	U106
608-93-5	Pentachlorobenzene			10			U183
609-19-8	3,4,5-Trichlorophenol			10			
610-39-9	3,4-Dinitrotoluene			10			
612-82-8	3,3'-Dimethylbenzidine dihydrochloride					313	
612-82-8	o-Tolidine dihydrochloride					X	

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
612-83-9	3,3'-Dichlorobenzidine dihydrochloride					313	
614-78-8	Thiourea, (2-methylphenyl)-	500/10,000	500				
615-05-4	2,4-Diaminoanisole					313	
615-28-1	1,2-Phenylenediamine dihydrochloride					313	
615-53-2	N-Nitroso-N-methylurethane			1			U178
621-64-7	Di-n-propylnitrosamine			10		X	U111
621-64-7	N-Nitrosodi-n-propylamine			10		313	U111
624-18-0	1,4-Phenylenediamine dihydrochloride					313	
624-64-6	2-Butene, (E)				10,000		
624-64-6	2-Butene-trans				10,000		
624-83-9	Methane, isocyanato-	500	10	10	10,000	X	P064
624-83-9	Methyl isocyanate	500	10	10	10,000	313	P064
625-16-1	tert-Amyl acetate			5,000			
626-38-0	sec-Amyl acetate			5,000			
627-11-2	Chloroethyl chloroformate	1,000	1,000				
627-20-3	2-Pentene, (Z)-				10,000		
628-63-7	Amyl acetate			5,000			
628-86-4	Mercury fulminate			10			P065
630-10-4	Selenourea			1,000			P103
630-20-6	Ethane, 1,1,1,2-tetrachloro-			100		X	U208
630-20-6	1,1,1,2-Tetrachloroethane			100		313	U208
630-60-4	Ouabain	100/10,000	100				
631-61-8	Ammonium acetate			5,000			
636-21-5	o-Toluidine hydrochloride			100		313	U222
639-58-7	Triphenyltin chloride	500/10,000	500			313	
640-19-7	Fluoroacetamide	100/10,000	100	100			P057
644-64-4	Dimetilan	500/10,000	1*	1*			P191
646-04-8	2-Pentene, (E)-				10,000		
675-14-9	Cyanuric fluoride	100	100				
676-97-1	Methyl phosphonic dichloride	100	100				
680-31-9	Hexamethylphosphoramide			1		313	
684-93-5	N-Nitroso-N-methylurea			1		313	U177
689-97-4	1-Buten-3-yne				10,000		
689-97-4	Vinyl acetylene				10,000		
692-42-2	Diethylarsine			1			P038
696-28-6	Dichlorophenylarsine	500	1	1			P036
696-28-6	Phenyl dichloroarsine	500	1	1			P036
709-98-8	N-(3,4-Dichlorophenyl)propanamide					X	
709-98-8	Propanil					313	
732-11-6	Phosmet	10/10,000	10				
757-58-4	Hexaethyl tetraphosphate			100			P062
759-73-9	N-Nitroso-N-ethylurea			1		313	U176
759-94-4	EPTC					X	
759-94-4	Ethyl dipropylthiocarbamate					313	
760-93-0	Methacrylic anhydride	500	500				
764-41-0	2-Butene, 1,4-dichloro-			1		X	U074
764-41-0	1,4-Dichloro-2-butene			1		313	U074
765-34-4	Glycidylaldehyde			10			U126
786-19-6	Carbophenothion	500	500				
812-04-4	1,1-Dichloro-1,2,2-trifluoroethane					313	

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
812-04-4	HCFC-123b					X	
814-49-3	Diethyl chlorophosphate	500	500				
814-68-6	Acrylyl chloride	100	100		5,000		
814-68-6	2-Propenoyl chloride	100	100		5,000		
815-82-7	Cupric tartrate			100			
822-06-0	Hexamethylene-1,6-diisocyanate			100		313#	
823-40-5	Diaminotoluene			10			U221
824-11-3	Trimethylolpropane phosphite	100/10,000	100				
834-12-8	Ametryn					313	
834-12-8	N-Ethyl-N'-(1-methylethyl)-6-(methylthio)-1,3,5,-triaz					X	
842-07-9	C.I. Solvent Yellow 14					313	
872-50-4	N-Methyl-2-pyrrolidone					313	
900-95-8	Stannane, acetoxyltriphenyl-	500/10,000	500				
919-86-8	Demeton-S-methyl	500	500				
920-46-7	Methacryloyl chloride	100	100				
924-16-3	N-Nitrosodi-n-butylamine			10		313	U172
924-42-5	N-Methylolacrylamide					313	
930-55-2	N-Nitrosopyrrolidine			1			U180
933-75-5	2,3,6-Trichlorophenol			10			
933-78-8	2,3,5-Trichlorophenol			10			
944-22-9	Fonofos	500	500				
947-02-4	Phosfolan	100/10,000	100				
950-10-7	Mephosfolan	500	500				
950-37-8	Methidathion	500/10,000	500				
957-51-7	Diphenamid					313	
959-98-8	alpha - Endosulfan			1			
961-11-5	Phosphoric acid, 2-chloro-1-(2,3,5-trichlorophenyl) eth					X	
961-11-5	Tetrachlorvinphos					313	
989-38-8	C.I. Basic Red 1					313	
991-42-4	Norbormide	100/10,000	100				
998-30-1	Triethoxysilane	500	500				
999-81-5	Chlormequat chloride	100/10,000	100				
1024-57-3	Heptachlor epoxide			1			
1031-07-8	Endosulfan sulfate			1			
1031-47-6	Triamiphos	500/10,000	500				
1066-30-4	Chromic acetate			1,000			
1066-33-7	Ammonium bicarbonate			5,000			
1066-45-1	Trimethyltin chloride	500/10,000	500				
1072-35-1	Lead stearate			10			
1111-78-0	Ammonium carbamate			5,000			
1114-71-2	Butylethylcarbamothioic acid S-propyl ester					X	
1114-71-2	Pebulate					313	
1116-54-7	N-Nitrosodiethanolamine			1			U173
1120-71-4	Propane sultone			10		313	U193
1120-71-4	1,3-Propane sultone			10		X	U193
1122-60-7	Nitrocyclohexane	500	500				
1124-33-0	Pyridine, 4-nitro-, 1-oxide	500/10,000	500				
1129-41-5	Metolcarb	100/10,000	1*	1*			P190
1134-23-2	Cycloate					313	
1163-19-5	Decabromodiphenyl oxide					313	

Member of diisocyanate category.

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
1185-57-5	Ferric ammonium citrate			1,000			
1194-65-6	Dichlobenil			100			
1300-71-6	Xylenol			1,000			
1303-28-2	Arsenic pentoxide	100/10,000	1	1			P011
1303-32-8	Arsenic disulfide			1			
1303-33-9	Arsenic trisulfide			1			
1306-19-0	Cadmium oxide	100/10,000	100				
1309-64-4	Antimony trioxide			1,000			
1310-58-3	Potassium hydroxide			1,000			
1310-73-2	Sodium hydroxide			1,000			
1313-27-5	Molybdenum trioxide					313	
1314-20-1	Thorium dioxide					313	
1314-32-5	Thallic oxide			100			P113
1314-62-1	Vanadium pentoxide	100/10,000	1,000	1,000			P120
1314-80-3	Sulfur phosphide			100			U189
1314-84-7	Zinc phosphide	500	100	100			P122
1314-84-7	Zinc phosphide (conc. > 10%)	500	100	100			P122
1314-84-7	Zinc phosphide (conc. <= 10%)	500	100	100			U249
1314-87-0	Lead sulfide			10			
1319-72-8	2,4,5-T amines			5,000			
1319-77-3	Cresol (mixed isomers)			100		313	U052
1320-18-9	2,4-D Esters			100		X	
1320-18-9	2,4-D propylene glycol butyl ether ester			100		313	
1321-12-6	Nitrotoluene			1,000			
1327-52-2	Arsenic acid			1			
1327-53-3	Arsenic trioxide	100/10,000	1	1			P012
1327-53-3	Arsenous oxide	100/10,000	1	1			P012
1330-20-7	Xylene (mixed isomers)			100		313	U239
1332-07-6	Zinc borate			1,000			
1332-21-4	Asbestos (friable)			1		313	
1333-74-0	Hydrogen				10,000		
1333-83-1	Sodium bifluoride			100			
1335-32-6	Lead subacetate			10			U146
1335-87-1	Hexachloronaphthalene					313	
1336-21-6	Ammonium hydroxide			1,000			
1336-36-3	PCBs			1		X	
1336-36-3	Polychlorinated biphenyls			1		313	
1338-23-4	Methyl ethyl ketone peroxide			10			U160
1338-24-5	Naphthenic acid			100			
1341-49-7	Ammonium bifluoride			100			
1344-28-1	Aluminum oxide (fibrous forms)					313	
1397-94-0	Antimycin A	1,000/10,000	1,000				
1420-07-1	Dinoterb	500/10,000	500				
1464-53-5	2,2'-Bioxirane	500	10	10		X	U085
1464-53-5	Diepoxybutane	500	10	10		313	U085
1558-25-4	Trichloro(chloromethyl)silane	100	100				
1563-38-8	Carbofuran phenol			1*			U367
1563-66-2	Carbofuran	10/10,000	10	10		313	P127
1582-09-8	Benezeneamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoro			10		X	
1582-09-8	Trifluralin			10		313	

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
1600-27-7	Mercuric acetate	500/10,000	500				
1615-80-1	Hydrazine, 1,2-diethyl-			10			U086
1622-32-8	Ethanesulfonyl chloride, 2-chloro-	500	500				
1634-04-4	Methyl tert-butyl ether			1,000		313	
1646-88-4	Aldicarb sulfone			1*			P203
1649-08-7	1,2-Dichloro-1,1-difluoroethane					313	
1649-08-7	HCFC-132b					X	
1689-84-5	Bromoxynil					313	
1689-84-5	3,5-Dibromo-4-hydroxybenzonitrile					X	
1689-99-2	Bromoxynil octanoate					313	
1689-99-2	Octanoic acid, 2,6-dibromo-4-cyanophenyl ester					X	
1717-00-6	1,1-Dichloro-1-fluoroethane					313	
1717-00-6	HCFC-141b					X	
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)			1			
1752-30-3	Acetone thiosemicarbazide	1,000/10,000	1,000				
1762-95-4	Ammonium thiocyanate			5,000			
1836-75-5	Benzene, 2,4-dichloro-1-(4-nitrophenoxy)-					X	
1836-75-5	Nitrofen					313	
1861-40-1	Benfluralin					313	
1861-40-1	N-Butyl-N-ethyl-2,6-dinitro-4-(trifluoromethyl) benzen					X	
1863-63-4	Ammonium benzoate			5,000			
1888-71-7	Hexachloropropene			1,000			U243
1897-45-6	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-					X	
1897-45-6	Chlorothalonil					313	
1910-42-5	Paraquat dichloride	10/10,000	10			313	
1912-24-9	Atrazine					313	
1912-24-9	6-Chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-2,4					X	
1918-00-9	Dicamba			1,000		313	
1918-00-9	3,6-Dichloro-2-methoxybenzoic acid			1,000		X	
1918-02-1	Picloram					313	
1918-16-7	2-Chloro-N-(1-methylethyl)-N-phenylacetamide					X	
1918-16-7	Propachlor					313	
1928-38-7	2,4-D Esters			100			
1928-43-4	2,4-D 2-ethylhexyl ester					313	
1928-47-8	2,4,5-T esters			1,000			
1928-61-6	2,4-D Esters			100			
1929-73-3	2,4-D butoxyethyl ester			100		313	
1929-73-3	2,4-D Esters			100		X	
1929-82-4	2-Chloro-6-(trichloromethyl)pyridine					X	
1929-82-4	Nitrapyrin					313	
1937-37-7	C.I. Direct Black 38					313	
1982-47-4	Chloroxuron	500/10,000	500				
1982-69-0	3,6-Dichloro-2-methoxybenzoic acid, sodium salt					X	
1982-69-0	Sodium dicamba					313	
1983-10-4	Tributyltin fluoride					313	
2001-95-8	Valinomycin	1,000/10,000	1,000				
2008-46-0	2,4,5-T amines			5,000			
2032-65-7	Mercaptodimethur	500/10,000	10	10		X	P199
2032-65-7	Methiocarb	500/10,000	10	10		313	P199
2074-50-2	Paraquat methosulfate	10/10,000	10				

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
2097-19-0	Phenylsilatrane	100/10,000	100				
2104-64-5	EPN	100/10,000	100				
2155-70-6	Tributyltin methacrylate					313	
2164-07-0	Dipotassium endothall					313	
2164-07-0	7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid, dip					X	
2164-17-2	Fluometuron					313	
2164-17-2	Urea, N,N-dimethyl-N'-[3-(trifluoromethyl)phenyl]-					X	
2212-67-1	1H-Azepine-1 carbothioic acid, hexahydro-S-ethyl ester					X	
2212-67-1	Molinate					313	
2223-93-0	Cadmium stearate	1,000/10,000	1,000				
2231-57-4	Thiocarbazide	1,000/10,000	1,000				
2234-13-1	Octachloronaphthalene					313	
2238-07-5	Diglycidyl ether	1,000	1,000				
2275-18-5	Prothoate	100/10,000	100				
2300-66-5	Dimethylamine dicamba					313	
2303-16-4	Carbamothioic acid,			100		X	U062
2303-16-4	Diallate			100		313	U062
2303-17-5	Triallate			1*		313	U389
2312-35-8	Propargite			10		313	
2439-01-2	Chinomethionat					313	
2439-01-2	6-Methyl-1,3-dithiolo[4,5-b]quinoxalin-2-one					X	
2439-10-3	Dodecylguanidine monoacetate					X	
2439-10-3	Dodine					313	
2497-07-6	Oxydisulfoton	500	500				
2524-03-0	Dimethyl chlorothiophosphate	500	500			313	
2524-03-0	Dimethyl phosphorochloridothioate	500	500			X	
2540-82-1	Formothion	100	100				
2545-59-7	2,4,5-T esters			1,000			
2556-36-7	1,4-Cyclohexane diisocyanate					313#	
2570-26-5	Pentadecylamine	100/10,000	100				
2587-90-8	Phosphorothioic acid,	500	500				
2602-46-2	C.I. Direct Blue 6					313	
2631-37-0	Promecarb	500/10,000	1*	1*			P201
2636-26-2	Cyanophos	1,000	1,000				
2642-71-9	Azinphos-ethyl	100/10,000	100				
2655-15-4	2,3,5-Trimethylphenyl methylcarbamate					313	
2665-30-7	Phosphonothioic acid, methyl-, O-(4-nitrophenyl) O-	500	500				
2699-79-8	Sulfuryl fluoride					313	
2699-79-8	Vikane					X	
2702-72-9	2,4-D sodium salt					313	
2703-13-1	Phosphonothioic acid, methyl-, O-ethyl	500	500				
2757-18-8	Thallous malonate	100/10,000	100				
2763-96-4	5-(Aminomethyl)-3-isoxazolol	500/10,000	1,000	1,000			P007
2763-96-4	Muscimol	500/10,000	1,000	1,000			P007
2764-72-9	Diquat			1,000			
2778-04-3	Endothion	500/10,000	500				
2832-40-8	C.I. Disperse Yellow 3					313	
2837-89-0	2-Chloro-1,1,1,2-tetrafluoroethane					313	
2837-89-0	HCFC-124					X	
2921-88-2	Chlorpyrifos			1			

Member of diisocyanate category.

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

Section 304							
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
2944-67-4	Ferric ammonium oxalate			1,000			
2971-38-2	2,4-D chlorocrotyl ester			100		313	
2971-38-2	2,4-D Esters			100		X	
3012-65-5	Ammonium citrate, dibasic			5,000			
3037-72-7	Silane, (4-aminobutyl)diethoxymethyl-	1,000	1,000				
3118-97-6	C.I. Solvent Orange 7					313	
3164-29-2	Ammonium tartrate			5,000			
3165-93-3	4-Chloro-o-toluidine, hydrochloride			100			U049
3173-72-6	1,5-Naphthalene diisocyanate					313#	
3251-23-8	Cupric nitrate			100			
3254-63-5	Phosphoric acid, dimethyl 4-(methylthio) phenyl ester	500	500				
3288-58-2	O,O-Diethyl S-methyl dithiophosphate			5,000			U087
3383-96-8	Temephos					313	
3486-35-9	Zinc carbonate			1,000			
3547-04-4	DDE			5,000			
3569-57-1	Sulfoxide, 3-chloropropyl octyl	500	500				
3615-21-2	Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)-	500/10,000	500				
3653-48-3	(4-Chloro-2-methylphenoxy) acetate sodium salt					X	
3653-48-3	Methoxone sodium salt					313	
3689-24-5	Sulfotep	500	100	100			P109
3689-24-5	Tetraethyldithiopyrophosphate	500	100	100			P109
3691-35-8	Chlorophacinone	100/10,000	100				
3697-24-3	5-Methylchrysene					313+	
3734-97-2	Amiton oxalate	100/10,000	100				
3735-23-7	Methyl phenkapton	500	500				
3761-53-3	C.I. Food Red 5					313	
3813-14-7	2,4,5-T amines			5,000			
3878-19-1	Fuberidazole	100/10,000	100				
4044-65-9	Bitoscanate	500/10,000	500				
4080-31-3	1-(3-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chl					313	
4098-71-9	Isophorone diisocyanate	100	100			313#	
4104-14-7	Phosacetim	100/10,000	100				
4109-96-0	Dichlorosilane				10,000		
4109-96-0	Silane, dichloro-				10,000		
4128-73-8	4,4'-Diisocyanatodiphenyl ether					313#	
4170-30-3	2-Butenal	1,000	100	100	20,000	X	U053
4170-30-3	Crotonaldehyde	1,000	100	100	20,000	313	U053
4301-50-2	Fluometil	100/10,000	100				
4418-66-0	Phenol, 2,2'-thiobis[4-chloro-6-methyl-	100/10,000	100				
4549-40-0	N-Nitrosomethylvinylamine			10		313	P084
4680-78-8	C.I. Acid Green 3					313	
4835-11-4	Hexamethylenediamine, N,N'-dibutyl-	500	500				
5124-30-1	1,1'-Methylene bis(4-isocyanatocyclohexane)					313#	
5234-68-4	Carboxin					313	
5234-68-4	5,6-Dihydro-2-methyl-N-phenyl-1,4-oxathiin-3-carbox					X	
5344-82-1	Thiourea, (2-chlorophenyl)-	100/10,000	100	100			P026
5385-75-1	Dibenzo(a,e)fluoranthene					313+	
5522-43-0	1-Nitropyrene					313+	
5598-13-0	Chlorpyrifos methyl					313	
5598-13-0	O,O-Dimethyl-O-(3,5,6-trichloro-2-pyridyl)phosphoro					X	

+ Member of PAC category.

Member of diisocyanate category.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
5836-29-3	Coumatetralyl	500/10,000	500				
5893-66-3	Cupric oxalate			100			
5902-51-2	5-Chloro-3-(1,1-dimethylethyl)-6-methyl-2,4(1H,3H)-					X	
5902-51-2	Terbacil					313	
5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate			1*			U395
5972-73-6	Ammonium oxalate			5,000			
6009-70-7	Ammonium oxalate			5,000			
6369-96-6	2,4,5-T amines			5,000			
6369-97-7	2,4,5-T amines			5,000			
6459-94-5	C.I. Acid Red 114					313	
6533-73-9	Thallium(I) carbonate	100/10,000	100	100			U215
6533-73-9	Thallous carbonate	100/10,000	100	100			U215
6923-22-4	Monocrotophos	10/10,000	10				
7005-72-3	4-Chlorophenyl phenyl ether			5,000			
7287-19-6	N,N'-Bis(1-methylethyl)-6-methylthio-1,3,5-triazine-2,					X	
7287-19-6	Prometryn					313	
7421-93-4	Endrin aldehyde			1			
7428-48-0	Lead stearate			10			
7429-90-5	Aluminum (fume or dust)					313	
7439-92-1	Lead			10		313	
7439-96-5	Manganese					313	
7439-97-6	Mercury			1		313	U151
7440-02-0	Nickel			100		313	
7440-22-4	Silver			1,000		313	
7440-23-5	Sodium			10			
7440-28-0	Thallium			1,000		313	
7440-36-0	Antimony			5,000		313	
7440-38-2	Arsenic			1		313	
7440-39-3	Barium					313	
7440-41-7	Beryllium			10		313	P015
7440-43-9	Cadmium			10		313	
7440-47-3	Chromium			5,000		313	
7440-48-4	Cobalt					313	
7440-50-8	Copper			5,000		313	
7440-62-2	Vanadium (fume or dust)					313	
7440-66-6	Zinc (fume or dust)			1,000		313	
7440-66-6	Zinc			1,000			
7446-08-4	Selenium dioxide			10			
7446-09-5	Sulfur dioxide	500	500				
7446-09-5	Sulfur dioxide (anhydrous)	500	500		5,000		
7446-11-9	Sulfur trioxide	100	100		10,000		
7446-14-2	Lead sulfate			10			
7446-18-6	Thallium(I) sulfate	100/10,000	100	100			P115
7446-18-6	Thallous sulfate	100/10,000	100	100			P115
7446-27-7	Lead phosphate			10			U145
7447-39-4	Cupric chloride			10			
7487-94-7	Mercuric chloride	500/10,000	500				
7488-56-4	Selenium sulfide			10			U205
7550-45-0	Titanium chloride (TiCl ₄) (T-4)-	100	1,000	1,000	2,500	X	
7550-45-0	Titanium tetrachloride	100	1,000	1,000	2,500	313	

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

Section 304

CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
7558-79-4	Sodium phosphate, dibasic			5,000			
7580-67-8	Lithium hydride	100	100				
7601-54-9	Sodium phosphate, tribasic			5,000			
7631-89-2	Sodium arsenate	1,000/10,000	1	1			
7631-90-5	Sodium bisulfite			5,000			
7632-00-0	Sodium nitrite			100		313	
7637-07-2	Borane, trifluoro-	500	500		5,000	X	
7637-07-2	Boron trifluoride	500	500		5,000	313	
7645-25-2	Lead arsenate			1			
7646-85-7	Zinc chloride			1,000			
7647-01-0	Hydrochloric acid			5,000			
7647-01-0	Hydrochloric acid (conc 37% or greater)			5,000	15,000		
7647-01-0	Hydrochloric acid (aerosol forms only)			5,000		313	
7647-01-0	Hydrogen chloride (anhydrous)	500	5,000	5,000	5,000	X	
7647-01-0	Hydrogen chloride (gas only)	500	5,000	5,000	5,000	X	
7647-18-9	Antimony pentachloride			1,000			
7664-38-2	Phosphoric acid			5,000		313	
7664-39-3	Hydrofluoric acid	100	100	100		X	U134
7664-39-3	Hydrofluoric acid (conc. 50% or greater)	100	100	100	1,000	X	U134
7664-39-3	Hydrogen fluoride	100	100	100		313	U134
7664-39-3	Hydrogen fluoride (anhydrous)	100	100	100	1,000	X	U134
7664-41-7	Ammonia	500	100	100		313	
7664-41-7	Ammonia (anhydrous)	500	100	100	10,000	X	
7664-41-7	Ammonia (conc 20% or greater)	500	100	100	20,000	X	
7664-93-9	Sulfuric acid	1,000	1,000	1,000			
7664-93-9	Sulfuric acid (aerosol forms only)	1,000	1,000	1,000		313	
7681-49-4	Sodium fluoride			1,000			
7681-52-9	Sodium hypochlorite			100			
7696-12-0	2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropaneca					X	
7696-12-0	Tetramethrin					313	
7697-37-2	Nitric acid	1,000	1,000	1,000		313	
7697-37-2	Nitric acid (conc 80% or greater)	1,000	1,000	1,000	15,000	X	
7699-45-8	Zinc bromide			1,000			
7705-08-0	Ferric chloride			1,000			
7718-54-9	Nickel chloride			100			
7719-12-2	Phosphorous trichloride	1,000	1,000	1,000	15,000		
7719-12-2	Phosphorus trichloride	1,000	1,000	1,000	15,000		
7720-78-7	Ferrous sulfate			1,000			
7722-64-7	Potassium permanganate			100			
7722-84-1	Hydrogen peroxide (Conc.> 52%)	1,000	1,000				
7723-14-0	Phosphorus (yellow or white)	100	1	1		313	
7723-14-0	Phosphorus	100	1	1			
7726-95-6	Bromine	500	500		10,000	313	
7733-02-0	Zinc sulfate			1,000			
7738-94-5	Chromic acid			10			
7758-01-2	Potassium bromate					313	
7758-29-4	Sodium phosphate, tribasic			5,000			
7758-94-3	Ferrous chloride			100			
7758-95-4	Lead chloride			10			
7758-98-7	Cupric sulfate			10			

Section 304

CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
7761-88-8	Silver nitrate			1			
7773-06-0	Ammonium sulfamate			5,000			
7775-11-3	Sodium chromate			10			
7778-39-4	Arsenic acid			1			P010
7778-44-1	Calcium arsenate	500/10,000	1	1			
7778-50-9	Potassium bichromate			10			
7778-54-3	Calcium hypochlorite			10			
7779-86-4	Zinc hydrosulfite			1,000			
7779-88-6	Zinc nitrate			1,000			
7782-41-4	Fluorine	500	10	10	1,000	313	P056
7782-49-2	Selenium			100		313	
7782-50-5	Chlorine	100	10	10	2,500	313	
7782-63-0	Ferrous sulfate			1,000			
7782-82-3	Sodium selenite			100			
7782-86-7	Mercurous nitrate			10			
7783-00-8	Selenious acid	1,000/10,000	10	10			U204
7783-06-4	Hydrogen sulfide	500	100	100	10,000	313	U135
7783-07-5	Hydrogen selenide	10	10		500		
7783-35-9	Mercuric sulfate			10			
7783-46-2	Lead fluoride			10			
7783-49-5	Zinc fluoride			1,000			
7783-50-8	Ferric fluoride			100			
7783-56-4	Antimony trifluoride			1,000			
7783-60-0	Sulfur fluoride (SF4), (T-4)-	100	100		2,500		
7783-60-0	Sulfur tetrafluoride	100	100		2,500		
7783-70-2	Antimony pentafluoride	500	500				
7783-80-4	Tellurium hexafluoride	100	100				
7784-34-1	Arsenous trichloride	500	1	1	15,000		
7784-40-9	Lead arsenate			1			
7784-41-0	Potassium arsenate			1			
7784-42-1	Arsine	100	100		1,000		
7784-46-5	Sodium arsenite	500/10,000	1	1			
7785-84-4	Sodium phosphate, tribasic			5,000			
7786-34-7	Mevinphos	500	10	10		313	
7786-81-4	Nickel sulfate			100			
7787-47-5	Beryllium chloride			1			
7787-49-7	Beryllium fluoride			1			
7787-55-5	Beryllium nitrate			1			
7788-98-9	Ammonium chromate			10			
7789-00-6	Potassium chromate			10			
7789-06-2	Strontium chromate			10			
7789-09-5	Ammonium bichromate			10			
7789-42-6	Cadmium bromide			10			
7789-43-7	Cobaltous bromide			1,000			
7789-61-9	Antimony tribromide			1,000			
7790-94-5	Chlorosulfonic acid			1,000			
7791-12-0	Thallium chloride TlCl	100/10,000	100	100			U216
7791-12-0	Thallos chloride	100/10,000	100	100			U216
7791-21-1	Chlorine monoxide				10,000		
7791-21-1	Chlorine oxide				10,000		

Section 304							
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
7791-23-3	Selenium oxychloride	500	500				
7803-51-2	Phosphine	500	100	100	5,000	313	P096
7803-55-6	Ammonium vanadate			1,000			P119
7803-62-5	Silane				10,000		
8001-35-2	Camphchlor	500/10,000	1	1		X	P123
8001-35-2	Camphene, octachloro-	500/10,000	1	1		X	P123
8001-35-2	Toxaphene	500/10,000	1	1		313	P123
8001-58-9	Creosote			1		313	U051
8003-19-8	Dichloropropane - Dichloropropene (mixture)			100			
8003-34-7	Pyrethrins			1			
8014-95-7	Oleum (fuming sulfuric acid)			1,000	10,000		
8014-95-7	Sulfuric acid (fuming)			1,000	10,000		
8014-95-7	Sulfuric acid, mixture with sulfur trioxide			1,000	10,000		
8065-48-3	Demeton	500	500				
9006-42-2	Metiram					313	
9016-87-9	Polymeric diphenylmethane diisocyanate					313#	
10022-70-5	Sodium hypochlorite			100			
10025-73-7	Chromic chloride	1/10,000	1				
10025-78-2	Silane, trichloro-				10,000		
10025-78-2	Trichlorosilane				10,000		
10025-87-3	Phosphorus oxychloride	500	1,000	1,000	5,000		
10025-87-3	Phosphoryl chloride	500	1,000	1,000	5,000		
10025-91-9	Antimony trichloride			1,000			
10026-11-6	Zirconium tetrachloride			5,000			
10026-13-8	Phosphorus pentachloride	500	500				
10028-15-6	Ozone	100	100			313	
10028-22-5	Ferric sulfate			1,000			
10031-59-1	Thallium sulfate	100/10,000	100	100			
10034-93-2	Hydrazine sulfate					313	
10039-32-4	Sodium phosphate, dibasic			5,000			
10043-01-3	Aluminum sulfate			5,000			
10045-89-3	Ferrous ammonium sulfate			1,000			
10045-94-0	Mercuric nitrate			10			
10049-04-4	Chlorine dioxide				1,000	313	
10049-04-4	Chlorine oxide (ClO ₂)				1,000	X	
10049-05-5	Chromous chloride			1,000			
10061-02-6	trans-1,3-Dichloropropene					313	
10099-74-8	Lead nitrate			10			
10101-53-8	Chromic sulfate			1,000			
10101-63-0	Lead iodide			10			
10101-89-0	Sodium phosphate, tribasic			5,000			
10102-06-4	Uranyl nitrate			100			
10102-18-8	Sodium selenite	100/10,000	100	100			
10102-20-2	Sodium tellurite	500/10,000	500				
10102-43-9	Nitric oxide	100	10	10	10,000		P076
10102-43-9	Nitrogen oxide (NO)	100	10	10	10,000		P076
10102-44-0	Nitrogen dioxide	100	10	10			P078
10102-45-1	Thallium(I) nitrate			100			U217
10102-48-4	Lead arsenate			1			
10108-64-2	Cadmium chloride			10			

Member of diisocyanate category.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
10124-50-2	Potassium arsenite	500/10,000	1	1			
10124-56-8	Sodium phosphate, tribasic			5,000			
10140-65-5	Sodium phosphate, dibasic			5,000			
10140-87-1	Ethanol, 1,2-dichloro-, acetate	1,000	1,000				
10192-30-0	Ammonium bisulfite			5,000			
10196-04-0	Ammonium sulfite			5,000			
10210-68-1	Cobalt carbonyl	10/10,000	10				
10222-01-2	2,2-Dibromo-3-nitrilopropionamide					313	
10265-92-6	Methamidophos	100/10,000	100				
10294-34-5	Borane, trichloro-	500	500		5,000	X	
10294-34-5	Boron trichloride	500	500		5,000	313	
10311-84-9	Dialifor	100/10,000	100				
10347-54-3	1,4-Bis(methylisocyanate)cyclohexane					313#	
10361-89-4	Sodium phosphate, tribasic			5,000			
10380-29-7	Cupric sulfate, ammoniated			100			
10415-75-5	Mercurous nitrate			10			
10421-48-4	Ferric nitrate			1,000			
10453-86-8	5-(Phenylmethyl)-3-furanyl)methyl					X	
10453-86-8	Resmethrin					313	
10476-95-6	Methacrolein diacetate	1,000	1,000				
10544-72-6	Nitrogen dioxide			10			
10588-01-9	Sodium bichromate			10			
10605-21-7	Carbendazim			1*			U372
11096-82-5	Aroclor 1260			1			
11097-69-1	Aroclor 1254			1			
11104-28-2	Aroclor 1221			1			
11115-74-5	Chromic acid			10			
11141-16-5	Aroclor 1232			1			
12002-03-8	Cupric acetoarsenite	500/10,000	1	1			
12002-03-8	Paris green	500/10,000	1	1			
12039-52-0	Selenious acid, dithallium(1+) salt			1,000			P114
12054-48-7	Nickel hydroxide			10			
12108-13-3	Manganese, tricarbonyl methylcyclopentadienyl	100	100				
12122-67-7	Carbamodithioic acid, 1,2-ethanediylbis-, zinc complex					X	
12122-67-7	Zineb					313	
12125-01-8	Ammonium fluoride			100			
12125-02-9	Ammonium chloride			5,000			
12135-76-1	Ammonium sulfide			100			
12427-38-2	Carbamodithioic acid, 1,2-ethanediylbis-, manganese c					X	
12427-38-2	Maneb					313	
12672-29-6	Aroclor 1248			1			
12674-11-2	Aroclor 1016			1			
12771-08-3	Sulfur monochloride			1,000			
13071-79-9	Terbufos	100	100				
13171-21-6	Phosphamidon	100	100				
13194-48-4	Ethoprop	1,000	1,000			313	
13194-48-4	Ethoprophos	1,000	1,000			X	
13194-48-4	Phosphorodithioic acid O-ethyl S,S-dipropyl ester	1,000	1,000			X	
13356-08-6	Fenbutatin oxide					313	
13356-08-6	Hexakis(2-methyl-2-phenylpropyl)distannoxane					X	

Member of diisocyanate category.

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304					
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
13410-01-0	Sodium selenate	100/10,000	100				
13450-90-3	Gallium trichloride	500/10,000	500				
13463-39-3	Nickel carbonyl	1	10	10	1,000		P073
13463-40-6	Iron carbonyl (Fe(CO)5), (TB-5-11)-	100	100		2,500	X	
13463-40-6	Iron, pentacarbonyl-	100	100		2,500	313	
13474-88-9	1,1-Dichloro-1,2,2,3,3-pentafluoropropane					313	
13474-88-9	HCFC-225cc					X	
13560-99-1	2,4,5-T salts			1,000			
13597-99-4	Beryllium nitrate			1			
13684-56-5	Desmedipham					313	
13746-89-9	Zirconium nitrate			5,000			
13765-19-0	Calcium chromate			10			U032
13814-96-5	Lead fluoborate			10			
13826-83-0	Ammonium fluoborate			5,000			
13952-84-6	sec-Butylamine			1,000			
14017-41-5	Cobaltous sulfamate			1,000			
14167-18-1	Salcomine	500/10,000	500				
14216-75-2	Nickel nitrate			100			
14258-49-2	Ammonium oxalate			5,000			
14307-35-8	Lithium chromate			10			
14307-43-8	Ammonium tartrate			5,000			
14484-64-1	Ferbam					313	
14484-64-1	Tris(dimethylcarbamodithioato-S,S')iron					X	
14639-97-5	Zinc ammonium chloride			1,000			
14639-98-6	Zinc ammonium chloride			1,000			
14644-61-2	Zirconium sulfate			5,000			
15271-41-7	Bicyclo[2.2.1]heptane-2-carbonitrile,	500/10,000	500				
15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-			1*			P196
15646-96-5	2,4,4-Trimethylhexamethylene diisocyanate					313#	
15699-18-0	Nickel ammonium sulfate			100			
15739-80-7	Lead sulfate			10			
15950-66-0	2,3,4-Trichlorophenol			10			
15972-60-8	Alachlor					313	
16071-86-6	C.I. Direct Brown 95					313	
16543-55-8	N-Nitrosornicotine					313	
16721-80-5	Sodium hydrosulfide			5,000			
16752-77-5	Ethanimidothioic acid, N-[[methylamino)carbonyl]	500/10,000	100	100			P066
16752-77-5	Methomyl	500/10,000	100	100			P066
16871-71-9	Zinc silicofluoride			5,000			
16919-19-0	Ammonium silicofluoride			1,000			
16923-95-8	Zirconium potassium fluoride			1,000			
16938-22-0	2,2,4-Trimethylhexamethylene diisocyanate					313#	
17702-41-9	Decaborane(14)	500/10,000	500				
17702-57-7	Formparanate	100/10,000	1*	1*			P197
17804-35-2	Benomyl			1*		313	U271
18883-66-4	Streptozotocin			1			U206
19044-88-3	4-(Dipropylamino)-3,5-dinitrobenzenesulfonamide					X	
19044-88-3	Oryzalin					313	
19287-45-7	Diborane	100	100		2,500		
19287-45-7	Diborane(6)	100	100		2,500		

Member of diisocyanate category.

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

CAS Number	Chemical Name	Section 304					
		Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
19624-22-7	Pentaborane	500	500				
19666-30-9	3-(2,4-Dichloro-5-(1-methylethoxy)phenyl)-5-(1,1-dimethylethoxy)phenyl					X	
19666-30-9	Oxydiazon					313	
20325-40-0	o-Dianisidine dihydrochloride					X	
20325-40-0	3,3'-Dimethoxybenzidine dihydrochloride					313	
20354-26-1	2-(3,4-Dichlorophenyl)-4-methyl-1,2,4-oxadiazolidine-					X	
20354-26-1	Methazole					313	
20816-12-0	Osmium oxide OsO4 (T-4)-			1,000		X	P087
20816-12-0	Osmium tetroxide			1,000		313	P087
20830-75-5	Digoxin	10/10,000	10				
20830-81-3	Daunomycin			10			U059
20859-73-8	Aluminum phosphide	500	100	100		313	P006
21087-64-9	Metribuzin					313	
21548-32-3	Fosthietan	500	500				
21609-90-5	Leptophos	500/10,000	500				
21725-46-2	Cyanazine					313	
21908-53-2	Mercuric oxide	500/10,000	500				
21923-23-9	Chlorthiophos	500	500				
22224-92-6	Fenamiphos	10/10,000	10				
22781-23-3	Bendiocarb			1*		313	U278
22781-23-3	2,2-Dimethyl-1,3-benzodioxol-4-ol methylcarbamate			1*		X	U278
22961-82-6	Bendiocarb phenol			1*			U364
23135-22-0	Oxamyl	100/10,000	1*	1*			P194
23422-53-9	Formetanate hydrochloride	500/10,000	1*	1*			P198
23505-41-1	Pirimifos-ethyl	1,000	1,000				
23564-05-8	Thiophanate-methyl			1*		313	U409
23564-06-9	(1,2-Phenylenebis(iminocarbonothioyl)) biscarbamic acid					X	
23564-06-9	Thiophanate ethyl					313	
23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)			5,000		X	U192
23950-58-5	Pronamide			5,000		313	U192
24017-47-8	Triazofos	500	500				
24934-91-6	Chlormephos	500	500				
25154-54-5	Dinitrobenzene (mixed isomers)			100			
25154-55-6	Nitrophenol (mixed isomers)			100			
25155-30-0	Sodium dodecylbenzenesulfonate			1,000			
25167-67-3	Butene				10,000		
25167-82-2	Trichlorophenol			10			
25168-15-4	2,4,5-T esters			1,000			
25168-26-7	2,4-D Esters			100			
25311-71-1	2-((Ethoxyl((1-methylethyl)amino)phosphinothioyl)ox					X	
25311-71-1	Isofenphos					313	
25321-14-6	Dinitrotoluene (mixed isomers)			10		313	
25321-22-6	Dichlorobenzene			100		X	
25321-22-6	Dichlorobenzene (mixed isomers)			100		313	
25376-45-8	Diaminotoluene (mixed isomers)			10		313	U221
25376-45-8	Toluenediamine			10		X	U221
25550-58-7	Dinitrophenol			10			
26002-80-2	2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropanecar					X	
26002-80-2	Phenothrin					313	
26264-06-2	Calcium dodecylbenzenesulfonate			1,000			

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

Section 304

CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
26419-73-8	Carbamic acid, methyl-,	100/10,000	1*	1*			P185
26471-62-5	Benzene, 1,3-diisocyanatomethyl-			100	10,000	X	U223
26471-62-5	Toluenediisocyanate (mixed isomers)			100	10,000	313	U223
26471-62-5	Toluene diisocyanate (unspecified isomer)			100	10,000	X	U223
26628-22-8	Sodium azide (Na(N ₃))	500	1,000	1,000		313	P105
26638-19-7	Dichloropropane			1,000			
26644-46-2	N,N'-(1,4-Piperazinediylbis(2,2,2-trichloroethylidene))					X	
26644-46-2	Triforine					313	
26952-23-8	Dichloropropene			100			
27137-85-5	Trichloro(dichlorophenyl)silane	500	500				
27176-87-0	Dodecylbenzenesulfonic acid			1,000			
27314-13-2	4-Chloro-5-(methylamino)-2-[3-(trifluoromethyl)pheny					X	
27314-13-2	Norflurazon					313	
27323-41-7	Triethanolamine dodecylbenzene sulfonate			1,000			
27774-13-6	Vanadyl sulfate			1,000			
28057-48-9	d-trans-Allethrin					313	
28057-48-9	d-trans-Chrysanthemic acid of d-allethrine					X	
28249-77-6	Carbamic acid, diethylthio-, S-(p-chlorobenzyl)					X	
28249-77-6	Thiobencarb					313	
28300-74-5	Antimony potassium tartrate			100			
28347-13-9	Xylylene dichloride	100/10,000	100				
28407-37-6	C.I. Direct Blue 218					313	
28772-56-7	Bromadiolone	100/10,000	100				
29232-93-7	O-(2-(Diethylamino)-6-methyl-4-pyrimidinyl)-O,O-dim					X	
29232-93-7	Pirimiphos methyl					313	
30525-89-4	Paraformaldehyde			1,000			
30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-			1*			U394
30560-19-1	Acephate					313	
30560-19-1	Acetylphosphoramidothioic acid O,S-dimethyl ester					X	
30674-80-7	Methacryloyloxyethyl isocyanate	100	100				
31218-83-4	3-((Ethylamino)methoxyphosphinothioyl)oxy)-2-buten					X	
31218-83-4	Propetamphos					313	
32534-95-5	2,4,5-TP esters			100			
33089-61-1	Amitraz					313	
33213-65-9	beta - Endosulfan			1			
34014-18-1	N-(5-(1,1-Dimethylethyl)-1,3,4-thiadiazol-2-yl)-N,N'-					X	
34014-18-1	Tebuthiuron					313	
34077-87-7	Dichlorotrifluoroethane					313	
35367-38-5	Diflubenzuron					313	
35400-43-2	O-Ethyl O-(4-(methylthio)phenyl)phosphorodithioic ac					X	
35400-43-2	Sulprofos					313	
35554-44-0	1-(2-(2,4-Dichlorophenyl)-2-(2-propenyloxy)ethyl)-1H					X	
35554-44-0	Imazalil					313	
35691-65-7	1-Bromo-1-(bromomethyl)-1,3-propanedicarbonitrile					313	
36478-76-9	Uranyl nitrate			100			
37211-05-5	Nickel chloride			100			
38661-72-2	1,3-Bis(methylisocyanate)cyclohexane					313#	
38727-55-8	Diethyl ethyl					313	
39156-41-7	2,4-Diaminoanisole sulfate					313	
39196-18-4	Thiofanox	100/10,000	100	100			P045

Member of diisocyanate category.

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

Section 304

CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE
39300-45-3	Dinocap					313	
39515-41-8	Fenpropathrin					313	
39515-41-8	2,2,3,3-Tetramethylcyclopropane carboxylic acid					X	
40487-42-1	N-(1-Ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine					X	
40487-42-1	Pendimethalin					313	
41198-08-7	O-(4-Bromo-2-chlorophenyl)-O-ethyl-S-propylphospho					X	
41198-08-7	Profenofos					313	
41766-75-0	3,3'-Dimethylbenzidine dihydrofluoride					313	
41766-75-0	o-Tolidine dihydrofluoride					X	
42504-46-1	Isopropanolamine dodecylbenzene sulfonate			1,000			
42874-03-3	Oxyfluorfen					313	
43121-43-3	1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-					X	
43121-43-3	Triadimefon					313	
50471-44-8	3-(3,5-Dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazol					X	
50471-44-8	Vinclozolin					313	
50782-69-9	Phosphonothioic acid, methyl-, S-(2-(bis(1-methylethyl	100	100				
51235-04-2	Hexazinone					313	
51338-27-3	2-(4-(2,4-Dichlorophenoxy)phenoxy)propanoic acid, m					X	
51338-27-3	Diclofop methyl					313	
51630-58-1	4-Chloro-alpha-(1-methylethyl)benzeneacetic acid					X	
51630-58-1	Fenvalerate					313	
52628-25-8	Zinc ammonium chloride			1,000			
52645-53-1	3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropane car					X	
52645-53-1	Permethrin					313	
52652-59-2	Lead stearate			10			
52740-16-6	Calcium arsenite			1			
52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester			1*			U387
53404-19-6	Bromacil, lithium salt					313	
53404-19-6	2,4-(1H,3H)-Pyrimidinedione,					X	
53404-37-8	2,4-D 2-ethyl-4-methylpentyl ester					313	
53404-60-7	Dazomet, sodium salt					313	
53404-60-7	Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione,					X	
53467-11-1	2,4-D Esters			100			
53469-21-9	Aroclor 1242			1			
53558-25-1	Pyriminil	100/10,000	100				
55285-14-8	Carbosulfan			1*			P189
55290-64-7	2,3,-Dihydro-5,6-dimethyl-1,4-dithiin 1,1,4,4-tetraoxide					X	
55290-64-7	Dimethipin					313	
55406-53-6	3-Iodo-2-propynyl butylcarbamate					313	
55488-87-4	Ferric ammonium oxalate			1,000			
56189-09-4	Lead stearate			10			
57213-69-1	Triclopyr triethylammonium salt					313	
58270-08-9	Zinc, dichloro(4,4-dimethyl-5(((methilamino)carbony	100/10,000	100				
59669-26-0	Thiodicarb			1*		313	U410
60168-88-9	.alpha.-(2-Chlorophenyl)-.alpha.-4-chlorophenyl)-5-pyr					X	
60168-88-9	Fenarimol					313	
60207-90-1	1-(2-(2,4-Dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl)-methyl					X	
60207-90-1	Propiconazole					313	
61792-07-2	2,4,5-T esters			1,000			
62207-76-5	Cobalt, ((2,2'-(1,2-ethanediy)bis(nitrilomethylidene))	100/10,000	100				

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

		Section 304						
CAS Number	Chemical Name	Sec. 302 (EHS) TPO	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE	
62476-59-9	Acifluorfen, sodium salt					313		
62476-59-9	5-(2-Chloro-4-(trifluoromethyl)phenoxy)-2-nitrobenzo					X		
63938-10-3	Chlorotetrafluoroethane					313		
64902-72-3	2-Chloro-N-(((4-methoxy-6-methyl-1,3,5-triazin-2-yl)					X		
64902-72-3	Chlorsulfuron					313		
64969-34-2	3,3'-Dichlorobenzidine sulfate					313		
66441-23-4	2-(4-((6-Chloro-2-benzoxazolylen)oxy)phenoxy)propa					X		
66441-23-4	Fenoxaprop ethyl					313		
67485-29-4	Hydramethylnon					313		
67485-29-4	Tetrahydro-5,5-dimethyl-2(1H)-pyrimidinone(3-(4-(tri					X		
68085-85-8	3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-Dimethylc					X		
68085-85-8	Cyhalothrin					313		
68359-37-5	Cyfluthrin					313		
68359-37-5	3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropanecarb					X		
69409-94-5	N-(2-Chloro-4-(trifluoromethyl)phenyl)-DL-valine(+)-					X		
69409-94-5	Fluvalinate					313		
69806-50-4	Fluazifop butyl					313		
69806-50-4	2-(4-(5-(Trifluoromethyl)-2-pyridinyl]oxy]-phenoxy)pr					X		
71751-41-2	Abamectin					313		
71751-41-2	Avermectin B1					X		
72178-02-0	5-(2-Chloro-4-(trifluoromethyl)phenoxy)-N-methylsulf					X		
72178-02-0	Fomesafen					313		
72490-01-8	Fenoxycarb					313		
72490-01-8	(2-(4-Phenoxy-phenoxy)-ethyl)carbamic acid ethyl ester					X		
74051-80-2	2-(1-(Ethoxyimino)					X		
74051-80-2	Sethoxydim					313		
75790-84-0	4-Methyldiphenylmethane-3,4-diisocyanate					313#		
75790-87-3	2,4'-Diisocyanatodiphenyl sulfide					313#		
76578-14-8	2-(4-(6-Chloro-2-quinoxalinyloxy]phenoxy) propanoi					X		
76578-14-8	Quizalofop-ethyl					313		
77501-63-4	5-(2-Chloro-4-(trifluoromethyl)phenoxy)-2-nitro-2-eth					X		
77501-63-4	Lactofen					313		
82657-04-3	Bifenthrin					313		
88671-89-0	.alpha.-Butyl-.alpha.-(4-chlorophenyl)-1H-1,2,4-triazo					X		
88671-89-0	Myclobutanil					313		
90454-18-5	Dichloro-1,1,2-trifluoroethane					313		
90982-32-4	Chlorimuron ethyl					313		
90982-32-4	Ethyl-2-(((4-chloro-6-methoxyprimidin-2-yl)-carbony					X		
101200-48-0	2-(4-Methoxy-6-methyl-1,3,5-triazin-2-yl)-methylamin					X		
101200-48-0	Tribenuron methyl					313		
111512-56-2	1,1-Dichloro-1,2,3,3,3-pentafluoropropane					313		
111512-56-2	HCFC-225eb					X		
111984-09-9	o-Dianisidine hydrochloride					X		
111984-09-9	3,3'-Dimethoxybenzidine hydrochloride					313		
127564-92-5	Dichloropentafluoropropane					313		
128903-21-9	2,2-Dichloro-1,1,1,3,3-pentafluoropropane					313		
128903-21-9	HCFC-225aa					X		
134190-37-7	Diethyldiisocyanatobenzene					313#		
136013-79-1	1,3-Dichloro-1,1,2,3,3-pentafluoropropane					313		
136013-79-1	HCFC-225ea					X		
	Organorhodium Complex (PMN-82-147)	10/10,000	10	**				

Member of diisocyanate category.

** This chemical was identified from a Premanufacture Review Notice (PMN) submitted to EPA. The submitter has claimed certain information on the submission to be confidential, including specific chemical identity.

CAS Number	Chemical Name	Section 304					Sec 313	RCRA CODE
		Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ			
	Antimony Compounds			***		N010		
	Arsenic Compounds			***		N020		
	Barium Compounds					N040		
	--Except Barium Sulfate (under 313)							
	Beryllium Compounds			***		N050		
	Cadmium Compounds			***		N078		
	Chlordane (Technical Mixture and Metabolites)			***				
	Chlorinated Benzenes			***				
	Chlorinated Ethanes			***				
	Chlorinated Naphthalene			***				
	Chlorinated Phenols			***		N084		
	Chloroalkyl Ethers			***				
	Chlorophenols			***		N084		
	Chromium Compounds			***		N090		
	Cobalt Compounds			***		N096		
	Coke Oven Emissions			1				
	Copper Compounds			***		N100		
	--Except copper phthalocyanine compounds (313)##							
	--Except C.I. Pigment Blue 15 (under 313)							
	--Except C.I. Pigment Green 7 (under 313)							
	--Except C.I. Pigment Green 36 (under 313)							
	Cyanide Compounds			***		N106		
	DDT and Metabolites			***				
	Dichlorobenzidine			***				
	Diisocyanates (includes only 20 chemicals)					N120		
	Diphenylhydrazine			***				
	Endosulfan and Metabolites			***				
	Endrin and Metabolites			***				
	Ethylenebisdithiocarbamic acid, salts and esters					N171		
	Fine mineral fibers			***				
	Glycol Ethers			***		N230		
	Haloethers			***				
	Halomethanes			***				
	Heptachlor and Metabolites			***				
	Hexachlorocyclohexane (all isomers) CAS 608-73-1			***				
	Lead Compounds			***		N420		
	Manganese Compounds			***		N450		
	Mercury Compounds			***		N458		
	Nickel Compounds			***		N495		
	Nicotine and salts					N503		
	Nitrate compounds (water dissociable)					N511		
	Nitrophenols			***				
	Nitrosamines			***				
	Phthalate Esters			***				
	Polybrominated Biphenyls (PBBs)					N575		
	Polychlorinated alkanes (C10 to C13)					N583		
	Polycyclic aromatic compounds (includes 19 chems)					N590		
	Polycyclic organic matter			***				

All copper phthalocyanine compounds substituted with only hydrogen and/or bromine or chlorine.

*** Indicates that no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance.

See 50 Federal Register 13456 (April 4, 1985).

Values in Section 313 column represent Category Codes for reporting under Section 313.

		Section 304						
CAS Number	Chemical Name	Sec. 302 (EHS) TPQ	EHS RQ	CERCLA RQ	CAA 112(r) TQ	Sec 313	RCRA CODE	
	Polynuclear Aromatic Hydrocarbons			***				
	Selenium Compounds			***		N725		
	Silver Compounds			***		N740		
	Strychnine and salts					N746		
	Thallium Compounds			***		N760		
	Warfarin and salts					N874		
	Zinc Compounds			***		N982		

*** Indicates that no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance.
See 50 Federal Register 13456 (April 4, 1985).
Values in Section 313 column represent Category Codes for reporting under Section 313.

APPENDIX A
ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number	Chemical Name	CAS Number	Chemical Name
71751-41-2	Abamectin	1863-63-4	Ammonium benzoate
83-32-9	Acenaphthene	1066-33-7	Ammonium bicarbonate
208-96-8	Acenaphthylene	7789-09-5	Ammonium bichromate
30560-19-1	Acephate	1341-49-7	Ammonium bifluoride
75-07-0	Acetaldehyde	10192-30-0	Ammonium bisulfite
75-87-6	Acetaldehyde, trichloro-	1111-78-0	Ammonium carbamate
60-35-5	Acetamide	506-87-6	Ammonium carbonate
64-19-7	Acetic acid	12125-02-9	Ammonium chloride
94-75-7	Acetic acid, (2,4-dichlorophenoxy)-	7788-98-9	Ammonium chromate
108-05-4	Acetic acid ethenyl ester	3012-65-5	Ammonium citrate, dibasic
108-24-7	Acetic anhydride	13826-83-0	Ammonium fluoborate
67-64-1	Acetone	12125-01-8	Ammonium fluoride
75-86-5	Acetone cyanohydrin	1336-21-6	Ammonium hydroxide
1752-30-3	Acetone thiosemicarbazide	5972-73-6	Ammonium oxalate
75-05-8	Acetonitrile	6009-70-7	Ammonium oxalate
98-86-2	Acetophenone	14258-49-2	Ammonium oxalate
53-96-3	2-Acetylaminofluorene	131-74-8	Ammonium picrate
506-96-7	Acetyl bromide	16919-19-0	Ammonium silicofluoride
75-36-5	Acetyl chloride	7773-06-0	Ammonium sulfamate
74-86-2	Acetylene	12135-76-1	Ammonium sulfide
30560-19-1	Acetylphosphoramidothioic acid O,S-dimethyl	10196-04-0	Ammonium sulfite
591-08-2	1-Acetyl-2-thiourea	3164-29-2	Ammonium tartrate
62476-59-9	Acifluorfen, sodium salt	14307-43-8	Ammonium tartrate
107-02-8	Acrolein	1762-95-4	Ammonium thiocyanate
79-06-1	Acrylamide	7803-55-6	Ammonium vanadate
79-10-7	Acrylic acid	300-62-9	Amphetamine
107-13-1	Acrylonitrile	628-63-7	Amyl acetate
814-68-6	Acrylyl chloride	123-92-2	iso-Amyl acetate
124-04-9	Adipic acid	626-38-0	sec-Amyl acetate
111-69-3	Adiponitrile	625-16-1	tert-Amyl acetate
15972-60-8	Alachlor	101-05-3	Anilazine
116-06-3	Aldicarb	62-53-3	Aniline
1646-88-4	Aldicarb sulfone	88-05-1	Aniline, 2,4,6-trimethyl-
309-00-2	Aldrin	90-04-0	o-Anisidine
28057-48-9	d-trans-Allethrin	104-94-9	p-Anisidine
107-18-6	Allyl alcohol	134-29-2	o-Anisidine hydrochloride
107-11-9	Allylamine	120-12-7	Anthracene
107-05-1	Allyl chloride	7440-36-0	Antimony
7429-90-5	Aluminum (fume or dust)		Antimony Compounds
1344-28-1	Aluminum oxide (fibrous forms)	7647-18-9	Antimony pentachloride
20859-73-8	Aluminum phosphide	7783-70-2	Antimony pentafluoride
10043-01-3	Aluminum sulfate	28300-74-5	Antimony potassium tartrate
834-12-8	Ametryn	7789-61-9	Antimony tribromide
117-79-3	2-Aminoanthraquinone	10025-91-9	Antimony trichloride
60-09-3	4-Aminoazobenzene	7783-56-4	Antimony trifluoride
92-67-1	4-Aminobiphenyl	1309-64-4	Antimony trioxide
82-28-0	1-Amino-2-methylantraquinone	1397-94-0	Antimycin A
2763-96-4	5-(Aminomethyl)-3-isoxazolol	86-88-4	ANTU
54-62-6	Aminopterin	12674-11-2	Aroclor 1016
504-24-5	4-Aminopyridine	11104-28-2	Aroclor 1221
78-53-5	Amiton	11141-16-5	Aroclor 1232
3734-97-2	Amiton oxalate	53469-21-9	Aroclor 1242
33089-61-1	Amitraz	12672-29-6	Aroclor 1248
61-82-5	Amitrole	11097-69-1	Aroclor 1254
7664-41-7	Ammonia	11096-82-5	Aroclor 1260
7664-41-7	Ammonia (anhydrous)	7440-38-2	Arsenic
7664-41-7	Ammonia (conc 20% or greater)	1327-52-2	Arsenic acid
631-61-8	Ammonium acetate	7778-39-4	Arsenic acid

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

	Arsenic Compounds
1303-32-8	Arsenic disulfide
1303-28-2	Arsenic pentoxide
1327-53-3	Arsenic trioxide
1303-33-9	Arsenic trisulfide
1327-53-3	Arsenous oxide
7784-34-1	Arsenous trichloride
7784-42-1	Arsine
1332-21-4	Asbestos (friable)
1912-24-9	Atrazine
492-80-8	Auramine
71751-41-2	Avermectin B1
115-02-6	Azaserine
2212-67-1	1H-Azepine-1 carbothioic acid, hexahydro-S-ethyl
2642-71-9	Azinphos-ethyl
86-50-0	Azinphos-methyl
151-56-4	Aziridine
75-55-8	Aziridine, 2-methyl
101-27-9	Barban
7440-39-3	Barium
	Barium Compounds
	--Except Barium Sulfate (under 313)
542-62-1	Barium cyanide
22781-23-3	Bendiocarb
22961-82-6	Bendiocarb phenol
1582-09-8	Benezeneamine,
1861-40-1	Benfluralin
17804-35-2	Benomyl
225-51-4	Benz[c]acridine
98-87-3	Benzal chloride
55-21-0	Benzamide
23950-58-5	Benzamide,
56-55-3	Benz[a]anthracene
98-16-8	Benzenamine, 3-(trifluoromethyl)-
71-43-2	Benzene
510-15-6	Benzeneacetic acid,
135-20-6	Benzenamine, N-hydroxy-N-nitroso, ammonium
98-05-5	Benzenearsonic acid
100-14-1	Benzene, 1-(chloromethyl)-4-nitro-
1897-45-6	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-
1836-75-5	Benzene, 2,4-dichloro-1-(4-nitrophenoxy)-
584-84-9	Benzene, 2,4-diisocyanato-1-methyl-
91-08-7	Benzene, 1,3-diisocyanato-2-methyl-
26471-62-5	Benzene, 1,3-diisocyanatomethyl-
108-38-3	Benzene, m-dimethyl-
95-47-6	Benzene, o-dimethyl-
106-42-3	Benzene, p-dimethyl-
122-09-8	Benzenethanamine, alpha,alpha-dimethyl-
115-32-2	Benzenemethanol,
98-09-9	Benzenesulfonyl chloride
108-98-5	Benzenethiol
72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis
92-87-5	Benidine
3615-21-2	Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)-
205-99-2	Benzo[b]fluoranthene
205-82-3	Benzo(j)fluoranthene
207-08-9	Benzo(k)fluoranthene
65-85-0	Benzoic acid

CAS Number Chemical Name

133-90-4	Benzoic acid, 3-amino-2,5-dichloro-
98-07-7	Benzoic trichloride
100-47-0	Benzonitrile
189-55-9	Benzo(rst)pentaphene
191-24-2	Benzo[ghi]perylene
218-01-9	Benzo(a)phenanthrene
50-32-8	Benzo[a]pyrene
106-51-4	p-Benzoquinone
98-07-7	Benzotrichloride
98-88-4	Benzoyl chloride
94-36-0	Benzoyl peroxide
100-44-7	Benzyl chloride
140-29-4	Benzyl cyanide
7440-41-7	Beryllium
7787-47-5	Beryllium chloride
	Beryllium Compounds
7787-49-7	Beryllium fluoride
7787-55-5	Beryllium nitrate
13597-99-4	Beryllium nitrate
319-84-6	alpha-BHC
319-85-7	beta-BHC
319-86-8	delta-BHC
15271-41-7	Bicyclo[2.2.1]heptane-2-carbonitrile,
82657-04-3	Bifenthrin
1464-53-5	2,2'-Bioxirane
92-52-4	Biphenyl
111-91-1	Bis(2-chloroethoxy) methane
111-44-4	Bis(2-chloroethyl) ether
542-88-1	Bis(chloromethyl) ether
108-60-1	Bis(2-chloro-1-methylethyl)ether
534-07-6	Bis(chloromethyl) ketone
117-81-7	Bis(2-ethylhexyl)phthalate
7287-19-6	N,N'-Bis(1-methylethyl)-6-methylthio-1,3,5-triazine
10347-54-3	1,4-Bis(methylisocyanate)cyclohexane
38661-72-2	1,3-Bis(methylisocyanate)cyclohexane
56-35-9	Bis(tributyltin) oxide
4044-65-9	Bitoscanate
10294-34-5	Borane, trichloro-
7637-07-2	Borane, trifluoro-
10294-34-5	Boron trichloride
7637-07-2	Boron trifluoride
353-42-4	Boron trifluoride compound with methyl ether (1:1)
353-42-4	Boron, trifluoro[oxybis(methane)]-, (T-4)-
314-40-9	Bromacil
53404-19-6	Bromacil, lithium salt
28772-56-7	Bromadiolone
7726-95-6	Bromine
598-31-2	Bromoacetone
35691-65-7	1-Bromo-1-(bromomethyl)-1,3-propanedicarbonitril
353-59-3	Bromochlorodifluoromethane
41198-08-7	O-(4-Bromo-2-chlorophenyl)-O-ethyl-S-propylpho
75-25-2	Bromoform
74-83-9	Bromomethane
314-40-9	5-Bromo-6-methyl-3-(1-methylpropyl)-2,4-(1H,3H)
101-55-3	4-Bromophenyl phenyl ether
598-73-2	Bromotrifluoroethylene
75-63-8	Bromotrifluoromethane
1689-84-5	Bromoxynil

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

1689-99-2	Bromoxynil octanoate
357-57-3	Brucine
106-99-0	1,3-Butadiene
78-79-5	1,3-Butadiene, 2-methyl-
106-97-8	Butane
78-78-4	Butane, 2-methyl-
4170-30-3	2-Butenal
123-73-9	2-Butenal, (e)-
25167-67-3	Butene
590-18-1	2-Butene-cis
624-64-6	2-Butene, (E)
624-64-6	2-Butene-trans
106-98-9	1-Butene
107-01-7	2-Butene
764-41-0	2-Butene, 1,4-dichloro-
689-97-4	1-Buten-3-yne
1929-73-3	2,4-D butoxyethyl ester
123-86-4	Butyl acetate
110-19-0	iso-Butyl acetate
105-46-4	sec-Butyl acetate
540-88-5	tert-Butyl acetate
141-32-2	Butyl acrylate
71-36-3	n-Butyl alcohol
78-92-2	sec-Butyl alcohol
75-65-0	tert-Butyl alcohol
109-73-9	Butylamine
78-81-9	iso-Butylamine
513-49-5	sec-Butylamine
13952-84-6	sec-Butylamine
75-64-9	tert-Butylamine
85-68-7	Butyl benzyl phthalate
88671-89-0	.alpha.-Butyl-.alpha.-(4-chlorophenyl)-1H-1,2,4-tri
106-88-7	1,2-Butylene oxide
1114-71-2	Butylethylcarbamothioic acid S-propyl ester
1861-40-1	N-Butyl-N-ethyl-2,6-dinitro-4-(trifluoromethyl)
84-74-2	n-Butyl phthalate
107-00-6	1-Butyne
123-72-8	Butyraldehyde
107-92-6	Butyric acid
79-31-2	iso-Butyric acid
75-60-5	Cacodylic acid
7440-43-9	Cadmium
543-90-8	Cadmium acetate
7789-42-6	Cadmium bromide
10108-64-2	Cadmium chloride
	Cadmium Compounds
1306-19-0	Cadmium oxide
2223-93-0	Cadmium stearate
7778-44-1	Calcium arsenate
52740-16-6	Calcium arsenite
75-20-7	Calcium carbide
13765-19-0	Calcium chromate
156-62-7	Calcium cyanamide
592-01-8	Calcium cyanide
26264-06-2	Calcium dodecylbenzenesulfonate
7778-54-3	Calcium hypochlorite
8001-35-2	Camphchlor
8001-35-2	Camphene, octachloro-

CAS Number Chemical Name

56-25-7	Cantharidin
105-60-2	Caprolactam
133-06-2	Captan
51-83-2	Carbachol chloride
28249-77-6	Carbamic acid, diethylthio-, S-(p-chlorobenzyl)
51-79-6	Carbamic acid, ethyl ester
26419-73-8	Carbamic acid, methyl-,
12427-38-2	Carbamodithioic acid, 1,2-ethanedithiolbis-,
12122-67-7	Carbamodithioic acid, 1,2-ethanedithiolbis-, zinc
2303-16-4	Carbamothioic acid,
52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl)
63-25-2	Carbaryl
10605-21-7	Carbendazim
1563-66-2	Carbofuran
1563-38-8	Carbofuran phenol
75-15-0	Carbon disulfide
353-50-4	Carbonic difluoride
75-44-5	Carbonic dichloride
79-22-1	Carbonochloridic acid, methylester
108-23-6	Carbonochloridic acid, 1-methylethyl ester
109-61-5	Carbonochloridic acid, propylester
463-58-1	Carbon oxide sulfide (COS)
56-23-5	Carbon tetrachloride
463-58-1	Carbonyl sulfide
786-19-6	Carbophenothion
55285-14-8	Carbosulfan
5234-68-4	Carboxin
120-80-9	Catechol
75-69-4	CFC-11
75-71-8	CFC-12
76-14-2	CFC-114
76-15-3	CFC-115
75-72-9	CFC-13
2439-01-2	Chinomethionat
133-90-4	Chloramben
305-03-3	Chlorambucil
57-74-9	Chlordane
	Chlordane (Technical Mixture and Metabolites)
115-28-6	Chlorendic acid
470-90-6	Chlorfenvinfos
90982-32-4	Chlorimuron ethyl
	Chlorinated Benzenes
	Chlorinated Ethanes
	Chlorinated Naphthalene
	Chlorinated Phenols
7782-50-5	Chlorine
10049-04-4	Chlorine dioxide
7791-21-1	Chlorine monoxide
7791-21-1	Chlorine oxide
10049-04-4	Chlorine oxide (ClO2)
24934-91-6	Chlormephos
999-81-5	Chlormequat chloride
494-03-1	Chlornaphazine
107-20-0	Chloroacetaldehyde
79-11-8	Chloroacetic acid
532-27-4	2-Chloroacetophenone
	Chloroalkyl Ethers
4080-31-3	1-(3-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

106-47-8	p-Chloroaniline
108-90-7	Chlorobenzene
510-15-6	Chlorobenzilate
66441-23-4	2-(4-((6-Chloro-2-benzoxazolylen)oxy)phenoxy)p
51-75-2	2-Chloro-N-(2-chloroethyl)-N-methylethanamine
59-50-7	p-Chloro-m-cresol
2971-38-2	2,4-D chlorocrotyl ester
124-48-1	Chlorodibromomethane
75-68-3	1-Chloro-1,1-difluoroethane
75-45-6	Chlorodifluoromethane
5902-51-2	5-Chloro-3-(1,1-dimethylethyl)-6-methyl-2,4(1H,3H
75-00-3	Chloroethane
107-07-3	Chloroethanol
627-11-2	Chloroethyl chloroformate
1912-24-9	6-Chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-
110-75-8	2-Chloroethyl vinyl ether
67-66-3	Chloroform
74-87-3	Chloromethane
64902-72-3	2-Chloro-N-(((4-methoxy-6-methyl-1,3,5-triazin-2-
27314-13-2	4-Chloro-5-(methylamino)-2-[3-(trifluoromethyl)ph
542-88-1	Chloromethyl ether
51630-58-1	4-Chloro-alpha-(1-methylethyl)benzeneacetic acid
1918-16-7	2-Chloro-N-(1-methylethyl)-N-phenylacetamide
107-30-2	Chloromethyl methyl ether
3653-48-3	(4-Chloro-2-methylphenoxy) acetate sodium salt
94-74-6	(4-Chloro-2-methylphenoxy) acetic acid
563-47-3	3-Chloro-2-methyl-1-propene
91-58-7	2-Chloronaphthalene
3691-35-8	Chlorophacinone
95-57-8	2-Chlorophenol
	Chlorophenols
43121-43-3	1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-tria
60168-88-9	.alpha.-(2-Chlorophenyl)-.alpha.-4-chlorophenyl)-
104-12-1	p-Chlorophenyl isocyanate
7005-72-3	4-Chlorophenyl phenyl ether
76-06-2	Chloropicrin
126-99-8	Chloroprene
542-76-7	3-Chloropropionitrile
557-98-2	2-Chloropropylene
590-21-6	1-Chloropropylene
76578-14-8	2-(4-((6-Chloro-2-quinoxalinyloxy)phenoxy)
7790-94-5	Chlorosulfonic acid
63938-10-3	Chlorotetrafluoroethane
354-25-6	1-Chloro-1,1,2,2-tetrafluoroethane
2837-89-0	2-Chloro-1,1,1,2-tetrafluoroethane
1897-45-6	Chlorothalonil
95-69-2	p-Chloro-o-toluidine
3165-93-3	4-Chloro-o-toluidine, hydrochloride
1929-82-4	2-Chloro-6-(trichloromethyl)pyridine
75-88-7	2-Chloro-1,1,1-trifluoroethane
75-72-9	Chlorotrifluoromethane
62476-59-9	5-(2-Chloro-4-(trifluoromethyl)phenoxy)-2-nitroben
72178-02-0	5-(2-Chloro-4-(trifluoromethyl)phenoxy)-N-methyl
77501-63-4	5-(2-Chloro-4-(trifluoromethyl)phenoxy)-2-nitro-2-
69409-94-5	N-(2-Chloro-4-(trifluoromethyl)phenyl)-DL-valine(+
460-35-5	3-Chloro-1,1,1-trifluoropropane
68085-85-8	3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-Dimeth
1982-47-4	Chloroxuron

CAS Number Chemical Name

2921-88-2	Chlorpyrifos
5598-13-0	Chlorpyrifos methyl
64902-72-3	Chlorsulfuron
21923-23-9	Chlorthiophos
1066-30-4	Chromic acetate
7738-94-5	Chromic acid
11115-74-5	Chromic acid
10025-73-7	Chromic chloride
10101-53-8	Chromic sulfate
7440-47-3	Chromium
	Chromium Compounds
10049-05-5	Chromous chloride
28057-48-9	d-trans-Chrysanthemic acid of d-allethron
218-01-9	Chrysene
4680-78-8	C.I. Acid Green 3
6459-94-5	C.I. Acid Red 114
569-64-2	C.I. Basic Green 4
989-38-8	C.I. Basic Red 1
1937-37-7	C.I. Direct Black 38
28407-37-6	C.I. Direct Blue 218
2602-46-2	C.I. Direct Blue 6
16071-86-6	C.I. Direct Brown 95
2832-40-8	C.I. Disperse Yellow 3
3761-53-3	C.I. Food Red 5
81-88-9	C.I. Food Red 15
3118-97-6	C.I. Solvent Orange 7
97-56-3	C.I. Solvent Yellow 3
842-07-9	C.I. Solvent Yellow 14
492-80-8	C.I. Solvent Yellow 34
128-66-5	C.I. Vat Yellow 4
7440-48-4	Cobalt
10210-68-1	Cobalt carbonyl
	Cobalt Compounds
62207-76-5	Cobalt,((2,2'-(1,2-ethanediyldis(nitrilomethylidene))
7789-43-7	Cobaltous bromide
544-18-3	Cobaltous formate
14017-41-5	Cobaltous sulfamate
	Coke Oven Emissions
64-86-8	Colchicine
7440-50-8	Copper
	Copper Compounds
	--Except copper phthalocyanine compounds
	--Except C.I. Pigment Blue 15 (under 313)
	--Except C.I. Pigment Green 7 (under 313)
	--Except C.I. Pigment Green 36 (under 313)
544-92-3	Copper cyanide
56-72-4	Coumaphos
5836-29-3	Coumatetralyl
8001-58-9	Creosote
120-71-8	p-Cresidine
108-39-4	m-Cresol
95-48-7	o-Cresol
106-44-5	p-Cresol
1319-77-3	Cresol (mixed isomers)
535-89-7	Crimidine
4170-30-3	Crotonaldehyde
123-73-9	Crotonaldehyde, (E)-
98-82-8	Cumene

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

80-15-9	Cumene hydroperoxide
135-20-6	Cupferron
142-71-2	Cupric acetate
12002-03-8	Cupric acetoarsenite
7447-39-4	Cupric chloride
3251-23-8	Cupric nitrate
5893-66-3	Cupric oxalate
7758-98-7	Cupric sulfate
10380-29-7	Cupric sulfate, ammoniated
815-82-7	Cupric tartrate
21725-46-2	Cyanazine
	Cyanide Compounds
57-12-5	Cyanides (soluble salts and complexes)
460-19-5	Cyanogen
506-68-3	Cyanogen bromide
506-77-4	Cyanogen chloride
506-77-4	Cyanogen chloride ((CN)Cl)
506-78-5	Cyanogen iodide
2636-26-2	Cyanophos
675-14-9	Cyanuric fluoride
1134-23-2	Cycloate
68-76-8	2,5-Cyclohexadiene-1,4-dione,
108-91-8	Cyclohexanamine
110-82-7	Cyclohexane
2556-36-7	1,4-Cyclohexane diisocyanate
58-89-9	Cyclohexane,
108-93-0	Cyclohexanol
108-94-1	Cyclohexanone
66-81-9	Cycloheximide
108-91-8	Cyclohexylamine
131-89-5	2-Cyclohexyl-4,6-dinitrophenol
50-18-0	Cyclophosphamide
75-19-4	Cyclopropane
68359-37-5	Cyfluthrin
68085-85-8	Cyhalothrin
94-75-7	2,4-D
94-75-7	2,4-D Acid
94-80-4	2,4-D butyl ester
94-11-1	2,4-D Esters
94-79-1	2,4-D Esters
94-80-4	2,4-D Esters
1320-18-9	2,4-D Esters
1928-38-7	2,4-D Esters
1928-61-6	2,4-D Esters
1929-73-3	2,4-D Esters
2971-38-2	2,4-D Esters
25168-26-7	2,4-D Esters
53467-11-1	2,4-D Esters
94-11-1	2,4-D isopropyl ester
1320-18-9	2,4-D propylene glycol butyl ether ester
94-75-7	2,4-D, salts and esters
20830-81-3	Daunomycin
533-74-4	Dazomet
53404-60-7	Dazomet, sodium salt
94-82-6	2,4-DB
96-12-8	DBCP
72-54-8	DDD
72-55-9	DDE

CAS Number Chemical Name

3547-04-4	DDE
50-29-3	DDT
	DDT and Metabolites
17702-41-9	Decaborane(14)
1163-19-5	Decabromodiphenyl oxide
78-48-8	DEF
117-81-7	DEHP
8065-48-3	Demeton
919-86-8	Demeton-S-methyl
13684-56-5	Desmedipham
1928-43-4	2,4-D 2-ethylhexyl ester
53404-37-8	2,4-D 2-ethyl-4-methylpentyl ester
10311-84-9	Dialifor
2303-16-4	Diallate
615-05-4	2,4-Diaminoanisole
39156-41-7	2,4-Diaminoanisole sulfate
101-80-4	4,4'-Diaminodiphenyl ether
496-72-0	Diaminotoluene
823-40-5	Diaminotoluene
95-80-7	2,4-Diaminotoluene
25376-45-8	Diaminotoluene (mixed isomers)
20325-40-0	o-Dianisidine dihydrochloride
111984-09-9	o-Dianisidine hydrochloride
333-41-5	Diazinon
334-88-3	Diazomethane
226-36-8	Dibenz(a,h)acridine
224-42-0	Dibenz(a,j)acridine
53-70-3	Dibenz[a,h]anthracene
194-59-2	7H-Dibenzo(c,g)carbazole
5385-75-1	Dibenzo(a,e)fluoranthene
132-64-9	Dibenzofuran
192-65-4	Dibenzo(a,e)pyrene
189-64-0	Dibenzo(a,h)pyrene
191-30-0	Dibenzo(a,l)pyrene
189-55-9	Dibenz[a,i]pyrene
19287-45-7	Diborane
19287-45-7	Diborane(6)
96-12-8	1,2-Dibromo-3-chloropropane
106-93-4	1,2-Dibromoethane
1689-84-5	3,5-Dibromo-4-hydroxybenzonitrile
10222-01-2	2,2-Dibromo-3-nitropropionamide
124-73-2	Dibromotetrafluoroethane
84-74-2	Dibutyl phthalate
1918-00-9	Dicamba
1194-65-6	Dichlobenil
117-80-6	Dichlone
99-30-9	Dichloran
95-50-1	o-Dichlorobenzene
25321-22-6	Dichlorobenzene
95-50-1	1,2-Dichlorobenzene
541-73-1	1,3-Dichlorobenzene
106-46-7	1,4-Dichlorobenzene
25321-22-6	Dichlorobenzene (mixed isomers)
91-94-1	3,3'-Dichlorobenzidine
	Dichlorobenzidine
612-83-9	3,3'-Dichlorobenzidine dihydrochloride
64969-34-2	3,3'-Dichlorobenzidine sulfate
75-27-4	Dichlorobromomethane

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number	Chemical Name	CAS Number	Chemical Name
110-57-6	trans-1,4-Dichloro-2-butene	90454-18-5	Dichloro-1,1,2-trifluoroethane
110-57-6	trans-1,4-Dichlorobutene	812-04-4	1,1-Dichloro-1,2,2-trifluoroethane
764-41-0	1,4-Dichloro-2-butene	354-23-4	1,2-Dichloro-1,1,2-trifluoroethane
101-05-3	4,6-Dichloro-N-(2-chlorophenyl)-1,3,5-triazin-2-am	306-83-2	2,2-Dichloro-1,1,1-trifluoroethane
1649-08-7	1,2-Dichloro-1,1-difluoroethane	62-73-7	Dichlorvos
75-71-8	Dichlorodifluoromethane	51338-27-3	Diclofop methyl
75-34-3	1,1-Dichloroethane	115-32-2	Dicofol
107-06-2	1,2-Dichloroethane	141-66-2	Dicrotophos
52645-53-1	3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropane	77-73-6	Dicyclopentadiene
68359-37-5	3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropane	60-57-1	Dieldrin
75-35-4	1,1-Dichloroethylene	1464-53-5	Diepoxybutane
156-60-5	1,2-Dichloroethylene	111-42-2	Diethanolamine
540-59-0	1,2-Dichloroethylene	38727-55-8	Diethatyl ethyl
111-44-4	Dichloroethyl ether	109-89-7	Diethylamine
1717-00-6	1,1-Dichloro-1-fluoroethane	29232-93-7	O-(2-(Diethylamino)-6-methyl-4-pyrimidinyl)-O,O-di
75-43-4	Dichlorofluoromethane	91-66-7	N,N-Diethylaniline
108-60-1	Dichloroisopropyl ether	692-42-2	Diethylarsine
75-09-2	Dichloromethane	814-49-3	Diethyl chlorophosphate
1918-00-9	3,6-Dichloro-2-methoxybenzoic acid	134190-37-7	Diethyldiisocyanatobenzene
1982-69-0	3,6-Dichloro-2-methoxybenzoic acid, sodium salt	117-81-7	Di(2-ethylhexyl) phthalate
542-88-1	Dichloromethyl ether	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
19666-30-9	3-(2,4-Dichloro-5-(1-methylethoxy)phenyl)-5-(1,1-	311-45-5	Diethyl-p-nitrophenyl phosphate
149-74-6	Dichloromethylphenylsilane	84-66-2	Diethyl phthalate
99-30-9	2,6-Dichloro-4-nitroaniline	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
127564-92-5	Dichloropentafluoropropane	56-53-1	Diethylstilbestrol
128903-21-9	2,2-Dichloro-1,1,1,3,3-pentafluoropropane	64-67-5	Diethyl sulfate
422-48-0	2,3-Dichloro-1,1,1,2,3-pentafluoropropane	35367-38-5	Diflubenzuron
422-44-6	1,2-Dichloro-1,1,2,3,3-pentafluoropropane	75-37-6	Difluoroethane
422-56-0	3,3-Dichloro-1,1,1,2,2-pentafluoropropane	71-63-6	Digitoxin
507-55-1	1,3-Dichloro-1,1,2,2,3-pentafluoropropane	2238-07-5	Diglycidyl ether
13474-88-9	1,1-Dichloro-1,1,2,2,3-pentafluoropropane	101-90-6	Diglycidyl resorcinol ether
431-86-7	1,2-Dichloro-1,1,3,3,3-pentafluoropropane	20830-75-5	Digoxin
136013-79-1	1,3-Dichloro-1,1,2,3,3-pentafluoropropane	55290-64-7	2,3,-Dihydro-5,6-dimethyl-1,4-dithiin
111512-56-2	1,1-Dichloro-1,2,3,3,3-pentafluoropropane	5234-68-4	5,6-Dihydro-2-methyl-N-phenyl-1,4-oxathiin-3-car
97-23-4	Dichlorophene	94-58-6	Dihydrosafrole
87-65-0	2,6-Dichlorophenol		Diisocyanates (includes only 20 chemicals)
120-83-2	2,4-Dichlorophenol	4128-73-8	4,4'-Diisocyanatodiphenyl ether
51338-27-3	2-(4-(2,4-Dichlorophenoxy)phenoxy)propanoic	75790-87-3	2,4'-Diisocyanatodiphenyl sulfide
696-28-6	Dichlorophenylarsine	55-91-4	Diisopropylfluorophosphate
50471-44-8	3-(3,5-Dichlorophenyl)-5-ethenyl-5-methyl-2,4-ox	115-26-4	Dimefox
20354-26-1	2-(3,4-Dichlorophenyl)-4-methyl-1,2,4-oxadiazolidi	309-00-2	1,4:5,8-Dimethanonaphthalene,
709-98-8	N-(3,4-Dichlorophenyl)propanamide	55290-64-7	Dimethipin
35554-44-0	1-(2-(2,4-Dichlorophenyl)-2-(2-propenyloxy)ethyl)	60-51-5	Dimethoate
60207-90-1	1-(2-(2,4-Dichlorophenyl)-4-propyl-1,3-dioxolan-2	119-90-4	3,3'-Dimethoxybenzidine
26638-19-7	Dichloropropane	20325-40-0	3,3'-Dimethoxybenzidine dihydrochloride
8003-19-8	Dichloropropane - Dichloropropene (mixture)	91-93-0	3,3'-Dimethoxybenzidine-4,4'-diisocyanate
78-99-9	1,1-Dichloropropane	111984-09-9	3,3'-Dimethoxybenzidine hydrochloride
78-87-5	1,2-Dichloropropane	124-40-3	Dimethylamine
142-28-9	1,3-Dichloropropane	2300-66-5	Dimethylamine dicamba
26952-23-8	Dichloropropene	60-11-7	4-Dimethylaminoazobenzene
542-75-6	1,3-Dichloropropene	60-11-7	Dimethylaminoazobenzene
10061-02-6	trans-1,3-Dichloropropene	121-69-7	N,N-Dimethylaniline
78-88-6	2,3-Dichloropropene	57-97-6	7,12-Dimethylbenz[a]anthracene
75-99-0	2,2-Dichloropropionic acid	119-93-7	3,3'-Dimethylbenzidine
542-75-6	1,3-Dichloropropylene	612-82-8	3,3'-Dimethylbenzidine dihydrochloride
4109-96-0	Dichlorosilane	41766-75-0	3,3'-Dimethylbenzidine dihydrofluoride
76-14-2	Dichlorotetrafluoroethane	22781-23-3	2,2-Dimethyl-1,3-benzodioxol-4-ol
34077-87-7	Dichlorotrifluoroethane	79-44-7	Dimethylcarbaryl chloride

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number	Chemical Name	CAS Number	Chemical Name
2524-03-0	Dimethyl chlorothiophosphate	514-73-8	Dithiazanine iodide
75-78-5	Dimethyldichlorosilane	541-53-7	Dithiobiuret
91-97-4	3,3'-Dimethyl-4,4'-diphenylene diisocyanate	541-53-7	2,4-Dithiobiuret
139-25-3	3,3'-Dimethyldiphenylmethane-4,4'-diisocyanate	330-54-1	Diuron
34014-18-1	N-(5-(1,1-Dimethylethyl)-1,3,4-thiadiazol-2-yl)-N,N'	27176-87-0	Dodecylbenzenesulfonic acid
68-12-2	Dimethylformamide	2439-10-3	Dodecylguanidine monoacetate
68-12-2	N,N-Dimethylformamide	2439-10-3	Dodine
57-14-7	1,1-Dimethyl hydrazine	120-36-5	2,4-DP
57-14-7	Dimethylhydrazine	2702-72-9	2,4-D sodium salt
55-38-9	O,O-Dimethyl O-(3-methyl-4-(methylthio) phenyl)	316-42-7	Emetine, dihydrochloride
7696-12-0	2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropan	115-29-7	Endosulfan
26002-80-2	2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropan	959-98-8	alpha - Endosulfan
105-67-9	2,4-Dimethylphenol	33213-65-9	beta - Endosulfan
99-98-9	Dimethyl-p-phenylenediamine		Endosulfan and Metabolites
2524-03-0	Dimethyl phosphorochloridothioate	1031-07-8	Endosulfan sulfate
131-11-3	Dimethyl phthalate	145-73-3	Endothall
463-82-1	2,2-Dimethylpropane	2778-04-3	Endothion
77-78-1	Dimethyl sulfate	72-20-8	Endrin
5598-13-0	O,O-Dimethyl-O-(3,5,6-trichloro-2-pyridyl)phospho	7421-93-4	Endrin aldehyde
644-64-4	Dimetilan		Endrin and Metabolites
25154-54-5	Dinitrobenzene (mixed isomers)	106-89-8	Epichlorohydrin
99-65-0	m-Dinitrobenzene	51-43-4	Epinephrine
528-29-0	o-Dinitrobenzene	2104-64-5	EPN
100-25-4	p-Dinitrobenzene	759-94-4	EPTC
88-85-7	Dinitrobutyl phenol	50-14-6	Ergocalciferol
534-52-1	Dinitrocresol	379-79-3	Ergotamine tartrate
534-52-1	4,6-Dinitro-o-cresol	75-04-7	Ethanamine
534-52-1	4,6-Dinitro-o-cresol and salts	74-84-0	Ethane
25550-58-7	Dinitrophenol	75-00-3	Ethane, chloro-
51-28-5	2,4-Dinitrophenol	107-15-3	1,2-Ethanediamine
329-71-5	2,5-Dinitrophenol	75-37-6	Ethane, 1,1-difluoro-
573-56-8	2,6-Dinitrophenol	460-19-5	Ethanedinitrile
25321-14-6	Dinitrotoluene (mixed isomers)	60-29-7	Ethane, 1,1'-oxybis-
121-14-2	2,4-Dinitrotoluene	79-21-0	Ethaneperoxoic acid
606-20-2	2,6-Dinitrotoluene	1622-32-8	Ethanesulfonyl chloride, 2-chloro-
610-39-9	3,4-Dinitrotoluene	630-20-6	Ethane, 1,1,1,2-tetrachloro-
39300-45-3	Dinocap	505-60-2	Ethane, 1,1'-thiobis[2-chloro-
88-85-7	Dinoseb	75-08-1	Ethanethiol
1420-07-1	Dinoterb	76-13-1	Ethane, 1,1,2-trichloro-1,2,2,-trifluoro-
117-84-0	n-Dioctylphthalate	30558-43-1	Ethanimidothioic acid,
117-84-0	Di-n-octyl phthalate	16752-77-5	Ethanimidothioic acid, N-[[methylamino)carbonyl]
123-91-1	1,4-Dioxane	10140-87-1	Ethanol, 1,2-dichloro-, acetate
78-34-2	Dioxathion	110-80-5	Ethanol, 2-ethoxy-
82-66-6	Diphacinone	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate
957-51-7	Diphenamid	74-85-1	Ethene
122-39-4	Diphenylamine	598-73-2	Ethene, bromotrifluoro-
122-66-7	1,2-Diphenylhydrazine	75-01-4	Ethene, chloro-
	Diphenylhydrazine	79-38-9	Ethene, chlorotrifluoro-
152-16-9	Diphosphoramide, octamethyl-	75-35-4	Ethene, 1,1-dichloro-
2164-07-0	Dipotassium endothall	75-38-7	Ethene, 1,1-difluoro-
142-84-7	Dipropylamine	109-92-2	Ethene, ethoxy-
19044-88-3	4-(Dipropylamino)-3,5-dinitrobenzenesulfonamide	75-02-5	Ethene, fluoro-
136-45-8	Dipropyl isocinchomeronate	107-25-5	Ethene, methoxy-
621-64-7	Di-n-propylnitrosamine	116-14-3	Ethene, tetrafluoro-
85-00-7	Diquat	563-12-2	Ethion
2764-72-9	Diquat	13194-48-4	Ethoprop
138-93-2	Disodium cyanodithioimidocarbonate	13194-48-4	Ethoprophos
298-04-4	Disulfoton	110-80-5	2-Ethoxyethanol

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number	Chemical Name	CAS Number	Chemical Name
74051-80-2	2-(1-(Ethoxyimino)	7720-78-7	Ferrous sulfate
25311-71-1	2-((Ethoxyl((1-methylethyl)amino]phosphinothioyl]	7782-63-0	Ferrous sulfate
141-78-6	Ethyl acetate		Fine mineral fibers
107-00-6	Ethyl acetylene	69806-50-4	Fluazifop butyl
140-88-5	Ethyl acrylate	4301-50-2	Fluenetil
31218-83-4	3-((Ethylamino)methoxyphosphinothioyl)oxy)-2-bu	2164-17-2	Fluometuron
100-41-4	Ethylbenzene	206-44-0	Fluoranthene
538-07-8	Ethylbis(2-chloroethyl)amine	86-73-7	Fluorene
51-79-6	Ethyl carbamate	7782-41-4	Fluorine
75-00-3	Ethyl chloride	640-19-7	Fluoroacetamide
541-41-3	Ethyl chloroformate	144-49-0	Fluoroacetic acid
90982-32-4	Ethyl-2-(((4-chloro-6-methoxyprimidin-2-yl)-carbo	62-74-8	Fluoroacetic acid, sodium salt
107-12-0	Ethyl cyanide	359-06-8	Fluoroacetyl chloride
759-94-4	Ethyl dipropylthiocarbamate	51-21-8	Fluorouracil
74-85-1	Ethylene	51-21-8	5-Fluorouracil
	Ethylenebisdithiocarbamic acid, salts and esters	69409-94-5	Fluvalinate
111-54-6	Ethylenebisdithiocarbamic acid, salts & esters	133-07-3	Folpet
107-15-3	Ethylenediamine	72178-02-0	Fomesafen
60-00-4	Ethylenediamine-tetraacetic acid (EDTA)	944-22-9	Fonofos
106-93-4	Ethylene dibromide	50-00-0	Formaldehyde
107-06-2	Ethylene dichloride	107-16-4	Formaldehyde cyanohydrin
371-62-0	Ethylene fluorohydrin	50-00-0	Formaldehyde (solution)
107-21-1	Ethylene glycol	23422-53-9	Formetanate hydrochloride
151-56-4	Ethyleneimine	64-18-6	Formic acid
75-21-8	Ethylene oxide	107-31-3	Formic acid, methyl ester
96-45-7	Ethylene thiourea	2540-82-1	Formothion
60-29-7	Ethyl ether	17702-57-7	Formparanate
75-34-3	Ethylidene Dichloride	21548-32-3	Fosthietan
75-08-1	Ethyl mercaptan	76-13-1	Freon 113
97-63-2	Ethyl methacrylate	3878-19-1	Fuberidazole
62-50-0	Ethyl methanesulfonate	110-17-8	Fumaric acid
834-12-8	N-Ethyl-N'-(1-methylethyl)-6-(methylthio)-1,3,5,-tri	110-00-9	Furan
35400-43-2	O-Ethyl O-(4-(methylthio)phenyl)phosphorodithioic	109-99-9	Furan, tetrahydro-
109-95-5	Ethyl nitrite	98-01-1	Furfural
40487-42-1	N-(1-Ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzena	13450-90-3	Gallium trichloride
301-12-2	S-(2-(Ethylsulfinyl)ethyl) O,O-dimethyl ester	765-34-4	Glycidylaldehyde
542-90-5	Ethylthiocyanate		Glycol Ethers
74-86-2	Ethyne	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
52-85-7	Famphur	86-50-0	Guthion
22224-92-6	Fenamiphos		Haloethers
60168-88-9	Fenarimol		Halomethanes
13356-08-6	Fenbutatin oxide	353-59-3	Halon 1211
66441-23-4	Fenoxaprop ethyl	75-63-8	Halon 1301
72490-01-8	Fenoxycarb	124-73-2	Halon 2402
39515-41-8	Fenpropathrin	354-14-3	HCFC-121
115-90-2	Fensulfothion	354-11-0	HCFC-121a
55-38-9	Fenthion	306-83-2	HCFC-123
51630-58-1	Fenvalerate	354-23-4	HCFC-123a
14484-64-1	Ferbam	812-04-4	HCFC-123b
1185-57-5	Ferric ammonium citrate	2837-89-0	HCFC-124
2944-67-4	Ferric ammonium oxalate	354-25-6	HCFC-124a
55488-87-4	Ferric ammonium oxalate	1649-08-7	HCFC-132b
7705-08-0	Ferric chloride	75-88-7	HCFC-133a
7783-50-8	Ferric fluoride	1717-00-6	HCFC-141b
10421-48-4	Ferric nitrate	75-68-3	HCFC-142b
10028-22-5	Ferric sulfate	75-43-4	HCFC-21
10045-89-3	Ferrous ammonium sulfate	75-45-6	HCFC-22
7758-94-3	Ferrous chloride	128903-21-9	HCFC-225aa

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

422-48-0	HCFC-225ba
422-44-6	HCFC-225bb
422-56-0	HCFC-225ca
507-55-1	HCFC-225cb
13474-88-9	HCFC-225cc
431-86-7	HCFC-225da
136013-79-1	HCFC-225ea
111512-56-2	HCFC-225eb
460-35-5	HCFC-253fb
76-44-8	Heptachlor
	Heptachlor and Metabolites
1024-57-3	Heptachlor epoxide
76-44-8	1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,
118-74-1	Hexachlorobenzene
87-68-3	Hexachloro-1,3-butadiene
87-68-3	Hexachlorobutadiene
	Hexachlorocyclohexane (all isomers) CAS
319-84-6	alpha-Hexachlorocyclohexane
58-89-9	Hexachlorocyclohexane (gamma isomer)
77-47-4	Hexachlorocyclopentadiene
67-72-1	Hexachloroethane
1335-87-1	Hexachloronaphthalene
70-30-4	Hexachlorophene
1888-71-7	Hexachloropropene
757-58-4	Hexaethyl tetraphosphate
13356-08-6	Hexakis(2-methyl-2-phenylpropyl)distannoxane
4835-11-4	Hexamethylenediamine, N,N'-dibutyl-
822-06-0	Hexamethylene-1,6-diisocyanate
680-31-9	Hexamethylphosphoramide
110-54-3	Hexane
110-54-3	n-Hexane
51235-04-2	Hexazinone
67485-29-4	Hydramethylnon
302-01-2	Hydrazine
1615-80-1	Hydrazine, 1,2-diethyl-
57-14-7	Hydrazine, 1,1-dimethyl-
540-73-8	Hydrazine, 1,2-dimethyl-
122-66-7	Hydrazine, 1,2-diphenyl-
60-34-4	Hydrazine, methyl-
10034-93-2	Hydrazine sulfate
122-66-7	Hydrazobenzene
7647-01-0	Hydrochloric acid (conc 37% or greater)
7647-01-0	Hydrochloric acid
7647-01-0	Hydrochloric acid (aerosol forms only)
74-90-8	Hydrocyanic acid
7664-39-3	Hydrofluoric acid
7664-39-3	Hydrofluoric acid (conc. 50% or greater)
1333-74-0	Hydrogen
7647-01-0	Hydrogen chloride (anhydrous)
7647-01-0	Hydrogen chloride (gas only)
74-90-8	Hydrogen cyanide
7664-39-3	Hydrogen fluoride
7664-39-3	Hydrogen fluoride (anhydrous)
7722-84-1	Hydrogen peroxide (Conc.> 52%)
7783-07-5	Hydrogen selenide
7783-06-4	Hydrogen sulfide
80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-
123-31-9	Hydroquinone

CAS Number Chemical Name

35554-44-0	Imazalil
193-39-5	Indeno(1,2,3-cd)pyrene
55406-53-6	3-Iodo-2-propynyl butylcarbamate
13463-40-6	Iron carbonyl (Fe(CO)5), (TB-5-11)-
13463-40-6	Iron, pentacarbonyl-
297-78-9	Isobenzan
75-28-5	Isobutane
78-83-1	Isobutyl alcohol
78-84-2	Isobutyraldehyde
78-82-0	Isobutyronitrile
102-36-3	Isocyanic acid, 3,4-dichlorophenyl ester
465-73-6	Isodrin
25311-71-1	Isufenphos
55-91-4	Isofluorophate
133-06-2	1H-Isoindole-1,3(2H)-dione,
78-78-4	Isopentane
78-59-1	Isophorone
4098-71-9	Isophorone diisocyanate
78-79-5	Isoprene
42504-46-1	Isopropanolamine dodecylbenzene sulfonate
67-63-0	Isopropyl alcohol (mfg-strong acid process)
75-31-0	Isopropylamine
75-29-6	Isopropyl chloride
108-23-6	Isopropyl chloroformate
80-05-7	4,4'-Isopropylidenediphenol
119-38-0	Isopropylmethylpyrazolyl dimethylcarbamate
120-58-1	Isosafrole
556-61-6	Isothiocyanatomethane
143-50-0	Kepone
77501-63-4	Lactofen
78-97-7	Lactonitrile
303-34-4	Lasiocarpine
7439-92-1	Lead
301-04-2	Lead acetate
7645-25-2	Lead arsenate
7784-40-9	Lead arsenate
10102-48-4	Lead arsenate
7758-95-4	Lead chloride
	Lead Compounds
13814-96-5	Lead fluoborate
7783-46-2	Lead fluoride
10101-63-0	Lead iodide
10099-74-8	Lead nitrate
7446-27-7	Lead phosphate
1072-35-1	Lead stearate
7428-48-0	Lead stearate
52652-59-2	Lead stearate
56189-09-4	Lead stearate
1335-32-6	Lead subacetate
7446-14-2	Lead sulfate
15739-80-7	Lead sulfate
1314-87-0	Lead sulfide
592-87-0	Lead thiocyanate
21609-90-5	Leptophos
541-25-3	Lewisite
58-89-9	Lindane
330-55-2	Linuron
554-13-2	Lithium carbonate

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

14307-35-8 Lithium chromate
 7580-67-8 Lithium hydride
 121-75-5 Malathion
 110-16-7 Maleic acid
 108-31-6 Maleic anhydride
 123-33-1 Maleic hydrazide
 109-77-3 Malononitrile
 12427-38-2 Maneb
 7439-96-5 Manganese
 15339-36-3 Manganese, bis(dimethylcarbamodithioato-S,S')-
 Manganese Compounds
 12108-13-3 Manganese, tricarbonyl methylcyclopentadienyl
 101-14-4 MBOCA
 149-30-4 MBT
 94-74-6 MCPA
 101-68-8 MDI
 51-75-2 Mechlorethamine
 93-65-2 Mecoprop
 148-82-3 Melphalan
 950-10-7 Mephosfolan
 149-30-4 2-Mercaptobenzothiazole
 2032-65-7 Mercaptodimethur
 1600-27-7 Mercuric acetate
 7487-94-7 Mercuric chloride
 592-04-1 Mercuric cyanide
 10045-94-0 Mercuric nitrate
 21908-53-2 Mercuric oxide
 7783-35-9 Mercuric sulfate
 592-85-8 Mercuric thiocyanate
 7782-86-7 Mercurous nitrate
 10415-75-5 Mercurous nitrate
 7439-97-6 Mercury
 Mercury Compounds
 628-86-4 Mercury fulminate
 150-50-5 Merphos
 10476-95-6 Methacrolein diacetate
 760-93-0 Methacrylic anhydride
 126-98-7 Methacrylonitrile
 920-46-7 Methacryloyl chloride
 30674-80-7 Methacryloyloxyethyl isocyanate
 10265-92-6 Methamidophos
 137-42-8 Metham sodium
 74-89-5 Methanamine
 75-50-3 Methanamine, N,N-dimethyl-
 124-40-3 Methanamine, N-methyl-
 62-75-9 Methanamine, N-methyl-N-nitroso-
 74-82-8 Methane
 74-87-3 Methane, chloro-
 107-30-2 Methane, chloromethoxy-
 624-83-9 Methane, isocyanato-
 115-10-6 Methane, oxybis-
 542-88-1 Methane, oxybis[chloro-
 594-42-3 Methanesulfonyl chloride, trichloro-
 558-25-8 Methanesulfonyl fluoride
 509-14-8 Methane, tetranitro-
 74-93-1 Methanethiol
 67-66-3 Methane, trichloro-
 57-74-9 4,7-Methanoindan,

CAS Number Chemical Name

67-56-1 Methanol
 91-80-5 Methapyrilene
 20354-26-1 Methazole
 950-37-8 Methidathion
 2032-65-7 Methiocarb
 16752-77-5 Methomyl
 94-74-6 Methoxone
 3653-48-3 Methoxone sodium salt
 72-43-5 Methoxychlor
 109-86-4 2-Methoxyethanol
 151-38-2 Methoxyethylmercuric acetate
 101200-48-0 2-(4-Methoxy-6-methyl-1,3,5-triazin-2-yl)-methyla
 96-33-3 Methyl acrylate
 74-83-9 Methyl bromide
 563-46-2 2-Methyl-1-butene
 563-45-1 3-Methyl-1-butene
 74-87-3 Methyl chloride
 80-63-7 Methyl 2-chloroacrylate
 79-22-1 Methyl chlorocarbonate
 71-55-6 Methyl chloroform
 79-22-1 Methyl chloroformate
 56-49-5 3-Methylcholanthrene
 3697-24-3 5-Methylchrysene
 75790-84-0 4-Methyldiphenylmethane-3,4-diisocyanate
 2439-01-2 6-Methyl-1,3-dithiolo[4,5-b]quinoxalin-2-one
 101-14-4 4,4'-Methylenebis(2-chloroaniline)
 97-23-4 2,2'-Methylenebis(4-chlorophenol)
 101-61-1 4,4'-Methylenebis(N,N-dimethyl)benzenamine
 5124-30-1 1,1'-Methylene bis(4-isocyanatocyclohexane)
 101-68-8 Methylenebis(phenylisocyanate)
 74-95-3 Methylene bromide
 75-09-2 Methylene chloride
 101-77-9 4,4'-Methylenedianiline
 115-10-6 Methyl ether
 78-93-3 Methyl ethyl ketone
 78-93-3 Methyl ethyl ketone (MEK)
 1338-23-4 Methyl ethyl ketone peroxide
 107-31-3 Methyl formate
 60-34-4 Methyl hydrazine
 74-88-4 Methyl iodide
 108-10-1 Methyl isobutyl ketone
 624-83-9 Methyl isocyanate
 556-61-6 Methyl isothiocyanate
 75-86-5 2-Methylactonitrile
 74-93-1 Methyl mercaptan
 502-39-6 Methylmercuric dicyanamide
 80-62-6 Methyl methacrylate
 924-42-5 N-Methylolacrylamide
 298-00-0 Methyl parathion
 3735-23-7 Methyl phenkapton
 676-97-1 Methyl phosphonic dichloride
 115-11-7 2-Methylpropene
 109-06-8 2-Methylpyridine
 872-50-4 N-Methyl-2-pyrrolidone
 1634-04-4 Methyl tert-butyl ether
 556-64-9 Methyl thiocyanate
 56-04-2 Methylthiouracil
 75-79-6 Methyltrichlorosilane

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number	Chemical Name	CAS Number	Chemical Name
78-94-4	Methyl vinyl ketone	25154-55-6	Nitrophenol (mixed isomers)
9006-42-2	Metiram	554-84-7	m-Nitrophenol
1129-41-5	Metolcarb	100-02-7	p-Nitrophenol
21087-64-9	Metribuzin	88-75-5	2-Nitrophenol
7786-34-7	Mevinphos	100-02-7	4-Nitrophenol
315-18-4	Mexacarbate		Nitrophenols
90-94-8	Michler's ketone	79-46-9	2-Nitropropane
50-07-7	Mitomycin C	5522-43-0	1-Nitropyrene
2212-67-1	Molinate		Nitrosamines
1313-27-5	Molybdenum trioxide	924-16-3	N-Nitrosodi-n-butylamine
76-15-3	Monochloropentafluoroethane	1116-54-7	N-Nitrosodiethanolamine
6923-22-4	Monocrotophos	55-18-5	N-Nitrosodiethylamine
75-04-7	Monoethylamine	62-75-9	N-Nitrosodimethylamine
74-89-5	Monomethylamine	62-75-9	Nitrosodimethylamine
150-68-5	Monuron	86-30-6	N-Nitrosodiphenylamine
2763-96-4	Muscimol	156-10-5	p-Nitrosodiphenylamine
505-60-2	Mustard gas	621-64-7	N-Nitrosodi-n-propylamine
88671-89-0	Myclobutanil	759-73-9	N-Nitroso-N-ethylurea
142-59-6	Nabam	684-93-5	N-Nitroso-N-methylurea
300-76-5	Naled	615-53-2	N-Nitroso-N-methylurethane
91-20-3	Naphthalene	4549-40-0	N-Nitrosomethylvinylamine
3173-72-6	1,5-Naphthalene diisocyanate	59-89-2	N-Nitrosomorpholine
63-25-2	1-Naphthalenol, methylcarbamate	16543-55-8	N-Nitrosornicotine
1338-24-5	Naphthenic acid	100-75-4	N-Nitrosopiperidine
130-15-4	1,4-Naphthoquinone	930-55-2	N-Nitrosopyrrolidine
134-32-7	alpha-Naphthylamine	1321-12-6	Nitrotoluene
91-59-8	beta-Naphthylamine	99-08-1	m-Nitrotoluene
7440-02-0	Nickel	88-72-2	o-Nitrotoluene
15699-18-0	Nickel ammonium sulfate	99-99-0	p-Nitrotoluene
13463-39-3	Nickel carbonyl	99-55-8	5-Nitro-o-toluidine
7718-54-9	Nickel chloride	109-95-5	Nitrous acid, ethyl ester
37211-05-5	Nickel chloride	991-42-4	Norbormide
	Nickel Compounds	27314-13-2	Norflurazon
557-19-7	Nickel cyanide	2234-13-1	Octachloronaphthalene
12054-48-7	Nickel hydroxide	1689-99-2	Octanoic acid, 2,6-dibromo-4-cyanophenyl ester
14216-75-2	Nickel nitrate	8014-95-7	Oleum (fuming sulfuric acid)
7786-81-4	Nickel sulfate	88888-88-8	Organorhodium Complex (PMN-82-147)
54-11-5	Nicotine	19044-88-3	Oryzalin
54-11-5	Nicotine and salts	20816-12-0	Osmium oxide OsO ₄ (T-4)-
	Nicotine and salts	20816-12-0	Osmium tetroxide
65-30-5	Nicotine sulfate	630-60-4	Ouabain
1929-82-4	Nitrapyrin	2164-07-0	7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid,
	Nitrate compounds (water dissociable)	23135-22-0	Oxamyl
7697-37-2	Nitric acid (conc 80% or greater)	78-71-7	Oxetane, 3,3-bis(chloromethyl)-
7697-37-2	Nitric acid	75-21-8	Oxirane
10102-43-9	Nitric oxide	106-89-8	Oxirane, (chloromethyl)-
139-13-9	Nitrilotriacetic acid	75-56-9	Oxirane, methyl-
100-01-6	p-Nitroaniline	301-12-2	Oxydemeton methyl
99-59-2	5-Nitro-o-anisidine	19666-30-9	Oxydiazon
98-95-3	Nitrobenzene	2497-07-6	Oxydisulfoton
92-93-3	4-Nitrobiphenyl	42874-03-3	Oxyfluorfen
1122-60-7	Nitrocyclohexane	10028-15-6	Ozone
1836-75-5	Nitrofen	30525-89-4	Paraformaldehyde
10102-44-0	Nitrogen dioxide	123-63-7	Paraldehyde
10544-72-6	Nitrogen dioxide	1910-42-5	Paraquat dichloride
51-75-2	Nitrogen mustard	2074-50-2	Paraquat methosulfate
10102-43-9	Nitrogen oxide (NO)	56-38-2	Parathion
55-63-0	Nitroglycerin	298-00-0	Parathion-methyl

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

12002-03-8 Paris green
 1336-36-3 PCBs
 82-68-8 PCNB
 87-86-5 PCP
 1114-71-2 Pebulate
 40487-42-1 Pendimethalin
 19624-22-7 Pentaborane
 608-93-5 Pentachlorobenzene
 76-01-7 Pentachloroethane
 82-68-8 Pentachloronitrobenzene
 87-86-5 Pentachlorophenol
 2570-26-5 Pentadecylamine
 504-60-9 1,3-Pentadiene
 109-66-0 Pentane
 109-67-1 1-Pentene
 646-04-8 2-Pentene, (E)-
 627-20-3 2-Pentene, (Z)-
 57-33-0 Pentobarbital sodium
 79-21-0 Peracetic acid
 127-18-4 Perchloroethylene
 594-42-3 Perchloromethyl mercaptan
 52645-53-1 Permethrin
 62-44-2 Phenacetin
 85-01-8 Phenanthrene
 108-95-2 Phenol
 114-26-1 Phenol, 2-(1-methylethoxy)-, methylcarbamate
 64-00-6 Phenol, 3-(1-methylethyl)-, methylcarbamate
 4418-66-0 Phenol, 2,2'-thiobis[4-chloro-6-methyl-
 26002-80-2 Phenothrin
 58-36-6 Phenoxarsine, 10,10'-oxydi-
 72490-01-8 (2-(4-Phenoxy-phenoxy)-ethyl)carbamic acid
 696-28-6 Phenyl dichloroarsine
 23564-06-9 (1,2-Phenylenebis(iminocarbonothioyl))
 95-54-5 1,2-Phenylenediamine
 106-50-3 p-Phenylenediamine
 108-45-2 1,3-Phenylenediamine
 615-28-1 1,2-Phenylenediamine dihydrochloride
 624-18-0 1,4-Phenylenediamine dihydrochloride
 104-49-4 1,4-Phenylene diisocyanate
 123-61-5 1,3-Phenylene diisocyanate
 59-88-1 Phenylhydrazine hydrochloride
 62-38-4 Phenylmercuric acetate
 62-38-4 Phenylmercury acetate
 10453-86-8 5-(Phenylmethyl)-3-furanyl)methyl
 90-43-7 2-Phenylphenol
 2097-19-0 Phenylsilatrane
 103-85-5 Phenylthiourea
 57-41-0 Phenytoin
 298-02-2 Phorate
 4104-14-7 Phosacetim
 947-02-4 Phosfolan
 75-44-5 Phosgene
 732-11-6 Phosmet
 13171-21-6 Phosphamidon
 7803-51-2 Phosphine
 52-68-6 Phosphonic
 2703-13-1 Phosphonothioic acid, methyl-, O-ethyl
 50782-69-9 Phosphonothioic acid, methyl-,

CAS Number Chemical Name

2665-30-7 Phosphonothioic acid, methyl-, O-(4-nitrophenyl)
 7664-38-2 Phosphoric acid
 961-11-5 Phosphoric acid,2-chloro-1-(2,3,5-trichlorophenyl)
 62-73-7 Phosphoric acid,2-dichloroethenyl dimethyl ester
 3254-63-5 Phosphoric acid,dimethyl 4-(methylthio) phenyl
 13194-48-4 Phosphorodithioic acid O-ethyl S,S-dipropyl ester
 56-38-2 Phosphorothioic
 2587-90-8 Phosphorothioic
 7719-12-2 Phosphorous trichloride
 7723-14-0 Phosphorus
 7723-14-0 Phosphorus (yellow or white)
 10025-87-3 Phosphorus oxochloride
 10026-13-8 Phosphorus pentachloride
 7719-12-2 Phosphorus trichloride
 10025-87-3 Phosphoryl chloride
 Phthalate Esters
 85-44-9 Phthalic anhydride
 57-47-6 Physostigmine
 57-64-7 Physostigmine, salicylate (1:1)
 1918-02-1 Picloram
 109-06-8 2-Picoline
 88-89-1 Picric acid
 124-87-8 Picrotoxin
 26644-46-2 N,N'-(1,4-Piperazinediylbis(2,2,2-trichloroethyliden
 110-89-4 Piperidine
 51-03-6 Piperonyl butoxide
 23505-41-1 Pirimifos-ethyl
 29232-93-7 Pirimiphos methyl
 75-74-1 Plumbane, tetramethyl-
 Polybrominated Biphenyls (PBBs)
 Polychlorinated alkanes (C10 to C13)
 1336-36-3 Polychlorinated biphenyls
 Polycyclic aromatic compounds (includes only 19
 Polycyclic organic matter
 9016-87-9 Polymeric diphenylmethane diisocyanate
 Polynuclear Aromatic Hydrocarbons
 7784-41-0 Potassium arsenate
 10124-50-2 Potassium arsenite
 7778-50-9 Potassium bichromate
 7758-01-2 Potassium bromate
 7789-00-6 Potassium chromate
 151-50-8 Potassium cyanide
 128-03-0 Potassium dimethyldithiocarbamate
 1310-58-3 Potassium hydroxide
 137-41-7 Potassium N-methyldithiocarbamate
 7722-64-7 Potassium permanganate
 506-61-6 Potassium silver cyanide
 41198-08-7 Profenofos
 2631-37-0 Promecarb
 7287-19-6 Prometryn
 23950-58-5 Pronamide
 1918-16-7 Propachlor
 463-49-0 Propadiene
 463-49-0 1,2-Propadiene
 75-31-0 2-Propanamine
 74-98-6 Propane
 75-29-6 Propane, 2-chloro-
 78-87-5 Propane 1,2-dichloro-

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

463-82-1	Propane, 2,2-dimethyl-
75-28-5	Propane, 2-methyl
107-12-0	Propanenitrile
78-82-0	Propanenitrile, 2-methyl-
1120-71-4	Propane sultone
1120-71-4	1,3-Propane sultone
709-98-8	Propanil
2312-35-8	Propargite
107-19-7	Propargyl alcohol
106-96-7	Propargyl bromide
107-02-8	2-Propenal
107-11-9	2-Propen-1-amine
115-07-1	Propene
115-07-1	1-Propene
590-21-6	1-Propene, 1-chloro-
557-98-2	1-Propene, 2-chloro-
115-11-7	1-Propene, 2-methyl-
107-13-1	2-Propenenitrile
126-98-7	2-Propenenitrile, 2-methyl-
107-18-6	2-Propen-1-ol
814-68-6	2-Propenoyl chloride
31218-83-4	Propetamphos
122-42-9	Propham
60207-90-1	Propiconazole
57-57-8	beta-Propiolactone
123-38-6	Propionaldehyde
79-09-4	Propionic acid
123-62-6	Propionic anhydride
107-12-0	Propionitrile
542-76-7	Propionitrile, 3-chloro-
70-69-9	Propiophenone, 4'-amino
114-26-1	Propoxur
107-10-8	n-Propylamine
109-61-5	Propyl chloroformate
115-07-1	Propylene
75-55-8	Propyleneimine
75-56-9	Propylene oxide
74-99-7	Propyne
74-99-7	1-Propyne
2275-18-5	Prothoate
129-00-0	Pyrene
121-21-1	Pyrethrins
121-29-9	Pyrethrins
8003-34-7	Pyrethrins
110-86-1	Pyridine
504-24-5	Pyridine, 4-amino-
54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-,(S)-
140-76-1	Pyridine, 2-methyl-5-vinyl-
1124-33-0	Pyridine, 4-nitro-, 1-oxide
53404-19-6	2,4-(1H,3H)-Pyrimidinedione,
53558-25-1	Pyriminil
91-22-5	Quinoline
106-51-4	Quinone
82-68-8	Quintozene
76578-14-8	Quizalofop-ethyl
50-55-5	Reserpine
10453-86-8	Resmethrin
108-46-3	Resorcinol

CAS Number Chemical Name

81-07-2	Saccharin (manufacturing)
81-07-2	Saccharin and salts
94-59-7	Safrole
14167-18-1	Salcomine
107-44-8	Sarin
7783-00-8	Selenious acid
12039-52-0	Selenious acid, dithallium(1+) salt
7782-49-2	Selenium
	Selenium Compounds
7446-08-4	Selenium dioxide
7791-23-3	Selenium oxychloride
7488-56-4	Selenium sulfide
630-10-4	Selenourea
563-41-7	Semicarbazide hydrochloride
74051-80-2	Sethoxydim
7803-62-5	Silane
3037-72-7	Silane, (4-aminobutyl)diethoxymethyl-
75-77-4	Silane, chlorotrimethyl-
4109-96-0	Silane, dichloro-
75-78-5	Silane, dichlorodimethyl-
75-76-3	Silane, tetramethyl-
10025-78-2	Silane, trichloro-
75-79-6	Silane, trichloromethyl-
7440-22-4	Silver
	Silver Compounds
506-64-9	Silver cyanide
7761-88-8	Silver nitrate
93-72-1	Silvex (2,4,5-TP)
122-34-9	Simazine
7440-23-5	Sodium
7631-89-2	Sodium arsenate
7784-46-5	Sodium arsenite
26628-22-8	Sodium azide (Na(N ₃))
10588-01-9	Sodium bichromate
1333-83-1	Sodium bifluoride
7631-90-5	Sodium bisulfite
124-65-2	Sodium cacodylate
7775-11-3	Sodium chromate
143-33-9	Sodium cyanide (Na(CN))
1982-69-0	Sodium dicamba
128-04-1	Sodium dimethyldithiocarbamate
25155-30-0	Sodium dodecylbenzenesulfonate
7681-49-4	Sodium fluoride
62-74-8	Sodium fluoroacetate
16721-80-5	Sodium hydrosulfide
1310-73-2	Sodium hydroxide
7681-52-9	Sodium hypochlorite
10022-70-5	Sodium hypochlorite
124-41-4	Sodium methylate
137-42-8	Sodium methyldithiocarbamate
7632-00-0	Sodium nitrite
131-52-2	Sodium pentachlorophenate
132-27-4	Sodium o-phenylphenoxide
7558-79-4	Sodium phosphate, dibasic
10039-32-4	Sodium phosphate, dibasic
10140-65-5	Sodium phosphate, dibasic
7601-54-9	Sodium phosphate, tribasic
7758-29-4	Sodium phosphate, tribasic

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

7785-84-4	Sodium phosphate, tribasic
10101-89-0	Sodium phosphate, tribasic
10124-56-8	Sodium phosphate, tribasic
10361-89-4	Sodium phosphate, tribasic
13410-01-0	Sodium selenate
7782-82-3	Sodium selenite
10102-18-8	Sodium selenite
10102-20-2	Sodium tellurite
900-95-8	Stannane, acetoxxytriphenyl-
18883-66-4	Streptozotocin
7789-06-2	Strontium chromate
57-24-9	Strychnine
	Strychnine and salts
57-24-9	Strychnine, and salts
60-41-3	Strychnine, sulfate
100-42-5	Styrene
96-09-3	Styrene oxide
3689-24-5	Sulfotep
3569-57-1	Sulfoxide, 3-chloropropyl octyl
7446-09-5	Sulfur dioxide
7446-09-5	Sulfur dioxide (anhydrous)
7783-60-0	Sulfur fluoride (SF ₄), (T-4)-
7664-93-9	Sulfuric acid
7664-93-9	Sulfuric acid (aerosol forms only)
8014-95-7	Sulfuric acid (fuming)
8014-95-7	Sulfuric acid, mixture with sulfur trioxide
12771-08-3	Sulfur monochloride
1314-80-3	Sulfur phosphide
7783-60-0	Sulfur tetrafluoride
7446-11-9	Sulfur trioxide
2699-79-8	Sulfuryl fluoride
35400-43-2	Sulprofos
93-76-5	2,4,5-T acid
1319-72-8	2,4,5-T amines
2008-46-0	2,4,5-T amines
3813-14-7	2,4,5-T amines
6369-96-6	2,4,5-T amines
6369-97-7	2,4,5-T amines
93-79-8	2,4,5-T esters
1928-47-8	2,4,5-T esters
2545-59-7	2,4,5-T esters
25168-15-4	2,4,5-T esters
61792-07-2	2,4,5-T esters
13560-99-1	2,4,5-T salts
77-81-6	Tabun
34014-18-1	Tebuthiuron
7783-80-4	Tellurium hexafluoride
3383-96-8	Temephos
107-49-3	TEPP
5902-51-2	Terbacil
13071-79-9	Terbufos
95-94-3	1,2,4,5-Tetrachlorobenzene
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
79-34-5	1,1,2,2-Tetrachloroethane
630-20-6	1,1,1,2-Tetrachloroethane
127-18-4	Tetrachloroethylene
354-14-3	1,1,2,2-Tetrachloro-1-fluoroethane
354-11-0	1,1,1,2-Tetrachloro-2-fluoroethane

CAS Number Chemical Name

58-90-2	2,3,4,6-Tetrachlorophenol
961-11-5	Tetrachlorvinphos
64-75-5	Tetracycline hydrochloride
3689-24-5	Tetraethyldithiopyrophosphate
78-00-2	Tetraethyl lead
107-49-3	Tetraethyl pyrophosphate
597-64-8	Tetraethyltin
116-14-3	Tetrafluoroethylene
67485-29-4	Tetrahydro-5,5-dimethyl-2(1H)-pyrimidinone(3-(4-(
533-74-4	Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thi
53404-60-7	Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thi
7696-12-0	Tetramethrin
39515-41-8	2,2,3,3-Tetramethylcyclopropane carboxylic acid
75-74-1	Tetramethyllead
75-76-3	Tetramethylsilane
509-14-8	Tetranitromethane
1314-32-5	Thallic oxide
7440-28-0	Thallium
563-68-8	Thallium(I) acetate
6533-73-9	Thallium(I) carbonate
7791-12-0	Thallium chloride TlCl
	Thallium Compounds
10102-45-1	Thallium(I) nitrate
7446-18-6	Thallium(I) sulfate
10031-59-1	Thallium sulfate
6533-73-9	Thallos carbonate
7791-12-0	Thallos chloride
2757-18-8	Thallos malonate
7446-18-6	Thallos sulfate
148-79-8	Thiabendazole
148-79-8	2-(4-Thiazolyl)-1H-benzimidazole
62-55-5	Thioacetamide
28249-77-6	Thiobencarb
2231-57-4	Thiocarbazide
556-64-9	Thiocyanic acid, methyl ester
139-65-1	4,4'-Thiodianiline
59669-26-0	Thiodicarb
39196-18-4	Thiofanox
74-93-1	Thiomethanol
297-97-2	Thionazin
23564-06-9	Thiophanate ethyl
23564-05-8	Thiophanate-methyl
108-98-5	Thiophenol
79-19-6	Thiosemicarbazide
62-56-6	Thiourea
5344-82-1	Thiourea, (2-chlorophenyl)-
614-78-8	Thiourea, (2-methylphenyl)-
86-88-4	Thiourea, 1-naphthalenyl-
137-26-8	Thiram
1314-20-1	Thorium dioxide
7550-45-0	Titanium chloride (TiCl ₄) (T-4)-
7550-45-0	Titanium tetrachloride
119-93-7	o-Tolidine
612-82-8	o-Tolidine dihydrochloride
41766-75-0	o-Tolidine dihydrofluoride
108-88-3	Toluene
25376-45-8	Toluenediamine
584-84-9	Toluene-2,4-diisocyanate

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

91-08-7	Toluene-2,6-diisocyanate
26471-62-5	Toluenediisocyanate (mixed isomers)
26471-62-5	Toluene diisocyanate (unspecified isomer)
95-53-4	o-Toluidine
106-49-0	p-Toluidine
636-21-5	o-Toluidine hydrochloride
8001-35-2	Toxaphene
32534-95-5	2,4,5-TP esters
43121-43-3	Triadimefon
2303-17-5	Triallate
1031-47-6	Triamiphos
68-76-8	Triaziquone
24017-47-8	Triazofos
101200-48-0	Tribenuron methyl
75-25-2	Tribromomethane
118-79-6	2,4,6-Tribromophenol
1983-10-4	Tributyltin fluoride
2155-70-6	Tributyltin methacrylate
78-48-8	S,S,S-Tributyltrithiophosphate
52-68-6	Trichlorfon
76-02-8	Trichloroacetyl chloride
120-82-1	1,2,4-Trichlorobenzene
1558-25-4	Trichloro(chloromethyl)silane
27137-85-5	Trichloro(dichlorophenyl)silane
71-55-6	1,1,1-Trichloroethane
79-00-5	1,1,2-Trichloroethane
79-01-6	Trichloroethylene
115-21-9	Trichloroethylsilane
75-69-4	Trichlorofluoromethane
594-42-3	Trichloromethanesulfenyl chloride
75-69-4	Trichloromonofluoromethane
327-98-0	Trichloronate
25167-82-2	Trichlorophenol
15950-66-0	2,3,4-Trichlorophenol
933-78-8	2,3,5-Trichlorophenol
933-75-5	2,3,6-Trichlorophenol
95-95-4	2,4,5-Trichlorophenol
88-06-2	2,4,6-Trichlorophenol
609-19-8	3,4,5-Trichlorophenol
98-13-5	Trichlorophenylsilane
96-18-4	1,2,3-Trichloropropane
10025-78-2	Trichlorosilane
57213-69-1	Triclopyr triethylammonium salt
27323-41-7	Triethanolamine dodecylbenzene sulfonate
998-30-1	Triethoxysilane
121-44-8	Triethylamine
79-38-9	Trifluorochloroethylene
69806-50-4	2-(4-(5-(Trifluoromethyl)-2-pyridinyl)oxy]-phenoxy
1582-09-8	Trifluralin
26644-46-2	Triforine
75-50-3	Trimethylamine
95-63-6	1,2,4-Trimethylbenzene
75-77-4	Trimethylchlorosilane
15646-96-5	2,4,4-Trimethylhexamethylene diisocyanate
16938-22-0	2,2,4-Trimethylhexamethylene diisocyanate
824-11-3	Trimethylolpropane phosphite
540-84-1	2,2,4-Trimethylpentane
2655-15-4	2,3,5-Trimethylphenyl methylcarbamate

CAS Number Chemical Name

1066-45-1	Trimethyltin chloride
99-35-4	1,3,5-Trinitrobenzene
639-58-7	Triphenyltin chloride
76-87-9	Triphenyltin hydroxide
555-77-1	Tris(2-chloroethyl)amine
126-72-7	Tris(2,3-dibromopropyl) phosphate
14484-64-1	Tris(dimethylcarbamodithioato-S,S')iron
72-57-1	Trypan blue
66-75-1	Uracil mustard
541-09-3	Uranyl acetate
10102-06-4	Uranyl nitrate
36478-76-9	Uranyl nitrate
2164-17-2	Urea, N,N-dimethyl-N'-[3-(trifluoromethyl)phenyl]-
51-79-6	Urethane
2001-95-8	Valinomycin
7440-62-2	Vanadium (fume or dust)
1314-62-1	Vanadium pentoxide
27774-13-6	Vanadyl sulfate
2699-79-8	Vikane
50471-44-8	Vinclozolin
108-05-4	Vinyl acetate
108-05-4	Vinyl acetate monomer
689-97-4	Vinyl acetylene
593-60-2	Vinyl bromide
75-01-4	Vinyl chloride
109-92-2	Vinyl ethyl ether
75-02-5	Vinyl fluoride
75-35-4	Vinylidene chloride
75-38-7	Vinylidene fluoride
107-25-5	Vinyl methyl ether
81-81-2	Warfarin
	Warfarin and salts
81-81-2	Warfarin, & salts, conc.>0.3%
129-06-6	Warfarin sodium
108-38-3	m-Xylene
95-47-6	o-Xylene
106-42-3	p-Xylene
1330-20-7	Xylene (mixed isomers)
1300-71-6	Xylenol
87-62-7	2,6-Xylidine
28347-13-9	Xylylene dichloride
7440-66-6	Zinc
7440-66-6	Zinc (fume or dust)
557-34-6	Zinc acetate
14639-97-5	Zinc ammonium chloride
14639-98-6	Zinc ammonium chloride
52628-25-8	Zinc ammonium chloride
1332-07-6	Zinc borate
7699-45-8	Zinc bromide
3486-35-9	Zinc carbonate
7646-85-7	Zinc chloride
	Zinc Compounds
557-21-1	Zinc cyanide
58270-08-9	Zinc,dichloro(4,4-dimethyl-5((((methylamino)carbo
7783-49-5	Zinc fluoride
557-41-5	Zinc formate
7779-86-4	Zinc hydrosulfite
7779-88-6	Zinc nitrate

ALPHABETICAL LISTING OF CHEMICAL NAME AND CAS NUMBER

CAS Number Chemical Name

127-82-2	Zinc phenolsulfonate
1314-84-7	Zinc phosphide (conc. > 10%)
1314-84-7	Zinc phosphide (conc. <= 10%)
1314-84-7	Zinc phosphide
16871-71-9	Zinc silicofluoride
7733-02-0	Zinc sulfate
12122-67-7	Zineb
137-30-4	Ziram
13746-89-9	Zirconium nitrate
16923-95-8	Zirconium potassium fluoride
14644-61-2	Zirconium sulfate
10026-11-6	Zirconium tetrachloride

APPENDIX B
RADIONUCLIDES LISTED UNDER CERCLA
FOR REFERENCE ONLY, NOT FOR REGULATORY COMPLIANCE
SEE 40 CFR PART 302, TABLE 302.4, APPENDIX B, FOR MORE INFORMATION

Radionuclide Name	Atomic Number	RQ (curies)	Radionuclide Name	Atomic Number	RQ (curies)
Radionuclides (unlisted)		1	Barium-128	56	10
Actinium-224	89	100	Barium-131	56	10
Actinium-225	89	1	Barium-131m	56	1000
Actinium-226	89	10	Barium-133	56	10
Actinium-227	89	0.001	Barium-133m	56	100
Actinium-228	89	10	Barium-135m	56	1000
Aluminum-026	13	10	Barium-139	56	1000
Americium-237	95	1000	Barium-140	56	10
Americium-238	95	100	Barium-141	56	1000
Americium-239	95	100	Barium-142	56	1000
Americium-240	95	10	Berkelium-245	97	100
Americium-241	95	0.01	Berkelium-246	97	10
Americium-242	95	100	Berkelium-247	97	0.01
Americium-242m	95	0.01	Berkelium-249	97	1
Americium-243	95	0.01	Berkelium-250	97	100
Americium-244	95	10	Beryllium-007	4	100
Americium-244m	95	1000	Beryllium-010	4	1
Americium-245	95	1000	Bismuth-200	83	100
Americium-246	95	1000	Bismuth-201	83	100
Americium-246m	95	1000	Bismuth-202	83	1000
Antimony-115	51	1000	Bismuth-203	83	10
Antimony-116	51	1000	Bismuth-205	83	10
Antimony-116m	51	100	Bismuth-206	83	10
Antimony-117	51	1000	Bismuth-207	83	10
Antimony-118m	51	10	Bismuth-210	83	10
Antimony-119	51	1000	Bismuth-210m	83	0.1
Antimony-120 (16 min)	51	1000	Bismuth-212	83	100
Antimony-120 (5.76 day)	51	10	Bismuth-213	83	100
Antimony-122	51	10	Bismuth-214	83	100
Antimony-124	51	10	Bromine-074	35	100
Antimony-124m	51	1000	Bromine-074m	35	100
Antimony-125	51	10	Bromine-075	35	100
Antimony-126	51	10	Bromine-076	35	10
Antimony-126m	51	1000	Bromine-077	35	100
Antimony-127	51	10	Bromine-080	35	1000
Antimony-128 (10.4 min)	51	1000	Bromine-080m	35	1000
Antimony-128 (9.01 hours)	51	10	Bromine-082	35	10
Antimony-129	51	100	Bromine-083	35	1000
Antimony-130	51	100	Bromine-084	35	100
Antimony-131	51	1000	Cadmium-104	48	1000
Argon-039	18	1000	Cadmium-107	48	1000
Argon-041	18	10	Cadmium-109	48	1
Arsenic-069	33	1000	Cadmium-113	48	0.1
Arsenic-070	33	100	Cadmium-113m	48	0.1
Arsenic-071	33	100	Cadmium-115	48	100
Arsenic-072	33	10	Cadmium-115m	48	10
Arsenic-073	33	100	Cadmium-117	48	100
Arsenic-074	33	10	Cadmium-117m	48	10
Arsenic-076	33	100	Calcium-041	20	10
Arsenic-077	33	1000	Calcium-045	20	10
Arsenic-078	33	100	Calcium-047	20	10
Astatine-207	85	100	Californium-244	98	1000
Astatine-211	85	100	Californium-246	98	10
Barium-126	56	1000	Californium-248	98	0.1

RADIONUCLIDES LISTED UNDER CERCLA
FOR REFERENCE ONLY, NOT FOR REGULATORY COMPLIANCE
SEE 40 CFR PART 302, TABLE 302.4, APPENDIX B, FOR MORE INFORMATION

Radionuclide Name	Atomic Number	RQ (curies)	Radionuclide Name	Atomic Number	RQ (curies)
Californium-249	98	0.01	Curium-245	96	0.01
Californium-250	98	0.01	Curium-246	96	0.01
Californium-251	98	0.01	Curium-247	96	0.01
Californium-252	98	0.1	Curium-248	96	0.001
Californium-253	98	10	Curium-249	96	1000
Californium-254	98	0.1	Dysprosium-155	66	100
Carbon-011	6	1000	Dysprosium-157	66	100
Carbon-014	6	10	Dysprosium-159	66	100
Cerium-134	58	10	Dysprosium-165	66	1000
Cerium-135	58	10	Dysprosium-166	66	10
Cerium-137	58	1000	Einsteinium-250	99	10
Cerium-137m	58	100	Einsteinium-251	99	1000
Cerium-139	58	100	Einsteinium-253	99	10
Cerium-141	58	10	Einsteinium-254	99	0.1
Cerium-143	58	100	Einsteinium-254m	99	1
Cerium-144	58	1	Erbium-161	68	100
Cesium-125	55	1000	Erbium-165	68	1000
Cesium-127	55	100	Erbium-169	68	100
Cesium-129	55	100	Erbium-171	68	100
Cesium-130	55	1000	Erbium-172	68	10
Cesium-131	55	1000	Europium-145	63	10
Cesium-132	55	10	Europium-146	63	10
Cesium-134	55	1	Europium-147	63	10
Cesium-134m	55	1000	Europium-148	63	10
Cesium-135	55	10	Europium-149	63	100
Cesium-135m	55	100	Europium-150 (12.6 hours)	63	1000
Cesium-136	55	10	Europium-150 (34.2 yr)	63	10
Cesium-137	55	1	Europium-152	63	10
Cesium-138	55	100	Europium-152m	63	100
Chlorine-036	17	10	Europium-154	63	10
Chlorine-038	17	100	Europium-155	63	10
Chlorine-039	17	100	Europium-156	63	10
Chromium-048	24	100	Europium-157	63	10
Chromium-049	24	1000	Europium-158	63	1000
Chromium-051	24	1000	Fermium-252	100	10
Cobalt-055	27	10	Fermium-253	100	10
Cobalt-056	27	10	Fermium-254	100	100
Cobalt-057	27	100	Fermium-255	100	100
Cobalt-058	27	10	Fermium-257	100	1
Cobalt-058m	27	1000	Fluorine-018	9	1000
Cobalt-060	27	10	Francium-222	87	100
Cobalt-060m	27	1000	Francium-223	87	100
Cobalt-061	27	1000	Gadolinium-145	64	100
Cobalt-062m	27	1000	Gadolinium-146	64	10
Copper-060	29	100	Gadolinium-147	64	10
Copper-061	29	100	Gadolinium-148	64	0.001
Copper-064	29	1000	Gadolinium-149	64	100
Copper-067	29	100	Gadolinium-151	64	100
Curium-238	96	1000	Gadolinium-152	64	0.001
Curium-240	96	1	Gadolinium-153	64	10
Curium-241	96	10	Gadolinium-159	64	1000
Curium-242	96	1	Gallium-065	31	1000
Curium-243	96	0.01	Gallium-066	31	10
Curium-244	96	0.01	Gallium-067	31	100

RADIONUCLIDES LISTED UNDER CERCLA
FOR REFERENCE ONLY, NOT FOR REGULATORY COMPLIANCE
SEE 40 CFR PART 302, TABLE 302.4, APPENDIX B, FOR MORE INFORMATION

Radionuclide Name	Atomic Number	RQ (curies)	Radionuclide Name	Atomic Number	RQ (curies)
Gallium-068	31	1000	Indium-115m	49	100
Gallium-070	31	1000	Indium-116m	49	100
Gallium-072	31	10	Indium-117	49	1000
Gallium-073	31	100	Indium-117m	49	100
Germanium-066	32	100	Indium-119m	49	1000
Germanium-067	32	1000	Iodine-120	53	10
Germanium-068	32	10	Iodine-120m	53	100
Germanium-069	32	10	Iodine-121	53	100
Germanium-071	32	1000	Iodine-123	53	10
Germanium-075	32	1000	Iodine-124	53	0.1
Germanium-077	32	10	Iodine-125	53	0.01
Germanium-078	32	1000	Iodine-126	53	0.01
Gold-193	79	100	Iodine-128	53	1000
Gold-194	79	10	Iodine-129	53	0.001
Gold-195	79	100	Iodine-130	53	1
Gold-198	79	100	Iodine-131	53	0.01
Gold-198m	79	10	Iodine-132	53	10
Gold-199	79	100	Iodine-132m	53	10
Gold-200	79	1000	Iodine-133	53	0.1
Gold-200m	79	10	Iodine-134	53	100
Gold-201	79	1000	Iodine-135	53	10
Hafnium-170	72	100	Iridium-182	77	1000
Hafnium-172	72	1	Iridium-184	77	100
Hafnium-173	72	100	Iridium-185	77	100
Hafnium-175	72	100	Iridium-186	77	10
Hafnium-177m	72	1000	Iridium-187	77	100
Hafnium-178m	72	0.1	Iridium-188	77	10
Hafnium-179m	72	100	Iridium-189	77	100
Hafnium-180m	72	100	Iridium-190	77	10
Hafnium-181	72	10	Iridium-190m	77	1000
Hafnium-182	72	0.1	Iridium-192	77	10
Hafnium-182m	72	100	Iridium-192m	77	100
Hafnium-183	72	100	Iridium-194	77	100
Hafnium-184	72	100	Iridium-194m	77	10
Holmium-155	67	1000	Iridium-195	77	1000
Holmium-157	67	1000	Iridium-195m	77	100
Holmium-159	67	1000	Iron-052	26	100
Holmium-161	67	1000	Iron-055	26	100
Holmium-162	67	1000	Iron-059	26	10
Holmium-162m	67	1000	Iron-060	26	0.1
Holmium-164	67	1000	Krypton-074	36	10
Holmium-164m	67	1000	Krypton-076	36	10
Holmium-166	67	100	Krypton-077	36	10
Holmium-166m	67	1	Krypton-079	36	100
Holmium-167	67	100	Krypton-081	36	1000
Hydrogen-003	1	100	Krypton-083m	36	1000
Indium-109	49	100	Krypton-085	36	1000
Indium-110 (4.9 hours)	49	10	Krypton-085m	36	100
Indium-110 (69.1 min)	49	100	Krypton-087	36	10
Indium-111	49	100	Krypton-088	36	10
Indium-112	49	1000	Lanthanum-131	57	1000
Indium-113m	49	1000	Lanthanum-132	57	100
Indium-114m	49	10	Lanthanum-135	57	1000
Indium-115	49	0.1	Lanthanum-137	57	10

RADIONUCLIDES LISTED UNDER CERCLA
FOR REFERENCE ONLY, NOT FOR REGULATORY COMPLIANCE
SEE 40 CFR PART 302, TABLE 302.4, APPENDIX B, FOR MORE INFORMATION

Radionuclide Name	Atomic Number	RQ (curies)	Radionuclide Name	Atomic Number	RQ (curies)
Lanthanum-138	57	1	Molybdenum-099	42	100
Lanthanum-140	57	10	Molybdenum-101	42	1000
Lanthanum-141	57	1000	Neodymium-136	60	1000
Lanthanum-142	57	100	Neodymium-138	60	1000
Lanthanum-143	57	1000	Neodymium-139	60	1000
Lead-195m	82	1000	Neodymium-139m	60	100
Lead-198	82	100	Neodymium-141	60	1000
Lead-199	82	100	Neodymium-147	60	10
Lead-200	82	100	Neodymium-149	60	100
Lead-201	82	100	Neodymium-151	60	1000
Lead-202	82	1	Neptunium-232	93	1000
Lead-202m	82	10	Neptunium-233	93	1000
Lead-203	82	100	Neptunium-234	93	10
Lead-205	82	100	Neptunium-235	93	1000
Lead-209	82	1000	Neptunium-236 (1.2E 5 yr)	93	0.1
Lead-210	82	0.01	Neptunium-236 (22.5 hours)	93	100
Lead-211	82	100	Neptunium-237	93	0.01
Lead-212	82	10	Neptunium-238	93	10
Lead-214	82	100	Neptunium-239	93	100
Lutetium-169	71	10	Neptunium-240	93	100
Lutetium-170	71	10	Nickel-056	28	10
Lutetium-171	71	10	Nickel-057	28	10
Lutetium-172	71	10	Nickel-059	28	100
Lutetium-173	71	100	Nickel-063	28	100
Lutetium-174	71	10	Nickel-065	28	100
Lutetium-174m	71	10	Nickel-066	28	10
Lutetium-176	71	1	Niobium-088	41	100
Lutetium-176m	71	1000	Niobium-089 (122 minutes)	41	100
Lutetium-177	71	100	Niobium-089 (66 minutes)	41	100
Lutetium-177m	71	10	Niobium-090	41	10
Lutetium-178	71	1000	Niobium-093m	41	100
Lutetium-178m	71	1000	Niobium-094	41	10
Lutetium-179	71	1000	Niobium-095	41	10
Magnesium-028	12	10	Niobium-095m	41	100
Manganese-051	25	1000	Niobium-096	41	10
Manganese-052	25	10	Niobium-097	41	100
Manganese-052m	25	1000	Niobium-098	41	1000
Manganese-053	25	1000	Osmium-180	76	1000
Manganese-054	25	10	Osmium-181	76	100
Manganese-056	25	100	Osmium-182	76	100
Mendelevium-257	101	100	Osmium-185	76	10
Mendelevium-258	101	1	Osmium-189m	76	1000
Mercury-193	80	100	Osmium-191	76	100
Mercury-193m	80	10	Osmium-191m	76	1000
Mercury-194	80	0.1	Osmium-193	76	100
Mercury-195	80	100	Osmium-194	76	1
Mercury-195m	80	100	Palladium-100	46	100
Mercury-197	80	1000	Palladium-101	46	100
Mercury-197m	80	1000	Palladium-103	46	100
Mercury-199m	80	1000	Palladium-107	46	100
Mercury-203	80	10	Palladium-109	46	1000
Molybdenum-090	42	100	Phosphorus-032	15	0.1
Molybdenum-093	42	100	Phosphorus-033	15	1
Molybdenum-093m	42	10	Platinum-186	78	100

RADIONUCLIDES LISTED UNDER CERCLA
FOR REFERENCE ONLY, NOT FOR REGULATORY COMPLIANCE
SEE 40 CFR PART 302, TABLE 302.4, APPENDIX B, FOR MORE INFORMATION

Radionuclide Name	Atomic Number	RQ (curies)	Radionuclide Name	Atomic Number	RQ (curies)
Platinum-188	78	100	Protactinium-230	91	10
Platinum-189	78	100	Protactinium-231	91	0.01
Platinum-191	78	100	Protactinium-232	91	10
Platinum-193	78	1000	Protactinium-233	91	100
Platinum-193m	78	100	Protactinium-234	91	10
Platinum-195m	78	100	Radium-223	88	1
Platinum-197	78	1000	Radium-224	88	10
Platinum-197m	78	1000	Radium-225	88	1
Platinum-199	78	1000	Radium-226	88	0.1
Platinum-200	78	100	Radium-227	88	1000
Plutonium-234	94	1000	Radium-228	88	0.1
Plutonium-235	94	1000	Radon-220	86	0.1
Plutonium-236	94	0.1	Radon-222	86	0.1
Plutonium-237	94	1000	Rhenium-177	75	1000
Plutonium-238	94	0.01	Rhenium-178	75	1000
Plutonium-239	94	0.01	Rhenium-181	75	100
Plutonium-240	94	0.01	Rhenium-182 (12.7 hours)	75	10
Plutonium-241	94	1	Rhenium-182 (64.0 hours)	75	10
Plutonium-242	94	0.01	Rhenium-184	75	10
Plutonium-243	94	1000	Rhenium-184m	75	10
Plutonium-244	94	0.01	Rhenium-186	75	100
Plutonium-245	94	100	Rhenium-186m	75	10
Polonium-203	84	100	Rhenium-187	75	1000
Polonium-205	84	100	Rhenium-188	75	1000
Polonium-207	84	10	Rhenium-188m	75	1000
Polonium-210	84	0.01	Rhenium-189	75	1000
Potassium-040	19	1	Rhodium-099	45	10
Potassium-042	19	100	Rhodium-099m	45	100
Potassium-043	19	10	Rhodium-100	45	10
Potassium-044	19	100	Rhodium-101	45	10
Potassium-045	19	1000	Rhodium-101m	45	100
Praseodymium-136	59	1000	Rhodium-102	45	10
Praseodymium-137	59	1000	Rhodium-102m	45	10
Praseodymium-138m	59	100	Rhodium-103m	45	1000
Praseodymium-139	59	1000	Rhodium-105	45	100
Praseodymium-142	59	100	Rhodium-106m	45	10
Praseodymium-142m	59	1000	Rhodium-107	45	1000
Praseodymium-143	59	10	Rubidium-079	37	1000
Praseodymium-144	59	1000	Rubidium-081	37	100
Praseodymium-145	59	1000	Rubidium-081m	37	1000
Praseodymium-147	59	1000	Rubidium-082m	37	10
Promethium-141	61	1000	Rubidium-083	37	10
Promethium-143	61	100	Rubidium-084	37	10
Promethium-144	61	10	Rubidium-086	37	10
Promethium-145	61	100	Rubidium-087	37	10
Promethium-146	61	10	Rubidium-088	37	1000
Promethium-147	61	10	Rubidium-089	37	1000
Promethium-148	61	10	Ruthenium-094	44	1000
Promethium-148m	61	10	Ruthenium-097	44	100
Promethium-149	61	100	Ruthenium-103	44	10
Promethium-150	61	100	Ruthenium-105	44	100
Promethium-151	61	100	Ruthenium-106	44	1
Protactinium-227	91	100	Samarium-141	62	1000
Protactinium-228	91	10	Samarium-141m	62	1000

RADIONUCLIDES LISTED UNDER CERCLA
FOR REFERENCE ONLY, NOT FOR REGULATORY COMPLIANCE
SEE 40 CFR PART 302, TABLE 302.4, APPENDIX B, FOR MORE INFORMATION

Radionuclide Name	Atomic Number	RQ (curies)	Radionuclide Name	Atomic Number	RQ (curies)
Samarium-142	62	1000	Tantalum-176	73	10
Samarium-145	62	100	Tantalum-177	73	1000
Samarium-146	62	0.01	Tantalum-178	73	1000
Samarium-147	62	0.01	Tantalum-179	73	1000
Samarium-151	62	10	Tantalum-180	73	100
Samarium-153	62	100	Tantalum-180m	73	1000
Samarium-155	62	1000	Tantalum-182	73	10
Samarium-156	62	100	Tantalum-182m	73	1000
Scandium-043	21	1000	Tantalum-183	73	100
Scandium-044	21	100	Tantalum-184	73	10
Scandium-044m	21	10	Tantalum-185	73	1000
Scandium-046	21	10	Tantalum-186	73	1000
Scandium-047	21	100	Technetium-093	43	100
Scandium-048	21	10	Technetium-093m	43	1000
Scandium-049	21	1000	Technetium-094	43	10
Selenium-070	34	1000	Technetium-094m	43	100
Selenium-073	34	10	Technetium-096	43	10
Selenium-073m	34	100	Technetium-096m	43	1000
Selenium-075	34	10	Technetium-097	43	100
Selenium-079	34	10	Technetium-097m	43	100
Selenium-081	34	1000	Technetium-098	43	10
Selenium-081m	34	1000	Technetium-099	43	10
Selenium-083	34	1000	Technetium-099m	43	100
Silicon-031	14	1000	Technetium-101	43	1000
Silicon-032	14	1	Technetium-104	43	1000
Silver-102	47	100	Tellurium-116	52	1000
Silver-103	47	1000	Tellurium-121	52	10
Silver-104	47	1000	Tellurium-121m	52	10
Silver-104m	47	1000	Tellurium-123	52	10
Silver-105	47	10	Tellurium-123m	52	10
Silver-106	47	1000	Tellurium-125m	52	10
Silver-106m	47	10	Tellurium-127	52	1000
Silver-108m	47	10	Tellurium-127m	52	10
Silver-110m	47	10	Tellurium-129	52	1000
Silver-111	47	10	Tellurium-129m	52	10
Silver-112	47	100	Tellurium-131	52	1000
Silver-115	47	1000	Tellurium-131m	52	10
Sodium-022	11	10	Tellurium-132	52	10
Sodium-024	11	10	Tellurium-133	52	1000
Strontium-080	38	100	Tellurium-133m	52	1000
Strontium-081	38	1000	Tellurium-134	52	1000
Strontium-083	38	100	Terbium-147	65	100
Strontium-085	38	10	Terbium-149	65	100
Strontium-085m	38	1000	Terbium-150	65	100
Strontium-087m	38	100	Terbium-151	65	10
Strontium-089	38	10	Terbium-153	65	100
Strontium-090	38	0.1	Terbium-154	65	10
Strontium-091	38	10	Terbium-155	65	100
Strontium-092	38	100	Terbium-156	65	10
Sulfur-035	16	1	Terbium-156m (24.4 hours)	65	1000
Tantalum-172	73	100	Terbium-156m (5.0 hours)	65	1000
Tantalum-173	73	100	Terbium-157	65	100
Tantalum-174	73	100	Terbium-158	65	10
Tantalum-175	73	100	Terbium-160	65	10

RADIONUCLIDES LISTED UNDER CERCLA
FOR REFERENCE ONLY, NOT FOR REGULATORY COMPLIANCE
SEE 40 CFR PART 302, TABLE 302.4, APPENDIX B, FOR MORE INFORMATION

Radionuclide Name	Atomic Number	RQ (curies)	Radionuclide Name	Atomic Number	RQ (curies)
Terbium-161	65	100	Uranium-233	92	0.1
Thallium-194	81	1000	Uranium-234	92	0.1
Thallium-194m	81	100	Uranium-235	92	0.1
Thallium-195	81	100	Uranium-236	92	0.1
Thallium-197	81	100	Uranium-237	92	100
Thallium-198	81	10	Uranium-238	92	0.1
Thallium-198m	81	100	Uranium-239	92	1000
Thallium-199	81	100	Uranium-240	92	1000
Thallium-200	81	10	Vanadium-047	23	1000
Thallium-201	81	1000	Vanadium-048	23	10
Thallium-202	81	10	Vanadium-049	23	1000
Thallium-204	81	10	Xenon-120	54	100
Thorium-226	90	100	Xenon-121	54	10
Thorium-227	90	1	Xenon-122	54	100
Thorium-228	90	0.01	Xenon-123	54	10
Thorium-229	90	0.001	Xenon-125	54	100
Thorium-230	90	0.01	Xenon-127	54	100
Thorium-231	90	100	Xenon-129m	54	1000
Thorium-232	90	0.001	Xenon-131m	54	1000
Thorium-234	90	100	Xenon-133	54	1000
Thulium-162	69	1000	Xenon-133m	54	1000
Thulium-166	69	10	Xenon-135	54	100
Thulium-167	69	100	Xenon-135m	54	10
Thulium-170	69	10	Xenon-138	54	10
Thulium-171	69	100	Ytterbium-162	70	1000
Thulium-172	69	100	Ytterbium-166	70	10
Thulium-173	69	100	Ytterbium-167	70	1000
Thulium-175	69	1000	Ytterbium-169	70	10
Tin-110	50	100	Ytterbium-175	70	100
Tin-111	50	1000	Ytterbium-177	70	1000
Tin-113	50	10	Ytterbium-178	70	1000
Tin-117m	50	100	Yttrium-086	39	10
Tin-119m	50	10	Yttrium-086m	39	1000
Tin-121	50	1000	Yttrium-087	39	10
Tin-121m	50	10	Yttrium-088	39	10
Tin-123	50	10	Yttrium-090	39	10
Tin-123m	50	1000	Yttrium-090m	39	100
Tin-125	50	10	Yttrium-091	39	10
Tin-126	50	1	Yttrium-091m	39	1000
Tin-127	50	100	Yttrium-092	39	100
Tin-128	50	1000	Yttrium-093	39	100
Titanium-044	22	1	Yttrium-094	39	1000
Titanium-045	22	1000	Yttrium-095	39	1000
Tungsten-176	74	1000	Zinc-062	30	100
Tungsten-177	74	100	Zinc-063	30	1000
Tungsten-178	74	100	Zinc-065	30	10
Tungsten-179	74	1000	Zinc-069	30	1000
Tungsten-181	74	100	Zinc-069m	30	100
Tungsten-185	74	10	Zinc-071m	30	100
Tungsten-187	74	100	Zinc-072	30	100
Tungsten-188	74	10	Zirconium-086	40	100
Uranium-230	92	1	Zirconium-088	40	10
Uranium-231	92	1000	Zirconium-089	40	100
Uranium-232	92	0.01	Zirconium-093	40	1

**RADIONUCLIDES LISTED UNDER CERCLA
FOR REFERENCE ONLY, NOT FOR REGULATORY COMPLIANCE
SEE 40 CFR PART 302, TABLE 302.4, APPENDIX B, FOR MORE INFORMATION**

Radionuclide Name	Atomic Number	RQ (curies)
Zirconium-95	40	10
Zirconium-97	40	10

NOTES:

- m - Signifies a nuclear isomer which is a radionuclide in a higher energy metastable state relative to the parent isotope.
- Final RQs for all radionuclides apply to chemical compounds containing the radionuclides and elemental forms regardless of the diameter of pieces of solid material.
- An adjusted RQ of one curie applies to all radionuclides not otherwise listed. Whenever the RQs in the SARA Title III Consolidated List and this list are in conflict, the lowest RQ applies.
- Notification requirements for releases of mixtures or solutions of radionuclides can be found in 40 CFR section 302.6(b).

APPENDIX C
RCRA WASTE STREAMS AND UNLISTED HAZARDOUS WASTES
THE DESCRIPTIONS OF THE WASTE STREAMS HAVE BEEN TRUNCATED.
THIS LIST SHOULD BE USED FOR REFERENCE ONLY
COMPLIANCE INFORMATION CAN BE FOUND IN 40 CFR PART 302 AND TABLE 302.4

RCRA Code	Description	RQ (lbs)
F001	The following spent halogenated solvents used in degreasing:	10
	(a) Tetrachloroethylene (CAS No. 127-18-4, RCRA Waste No. U210)	100
	(b) Trichloroethylene (CAS No. 79-01-6, RCRA Waste No. U228)	100
	(c) Methylene chloride (CAS No. 75-09-2, RCRA Waste No. U080)	1,000
	(d) 1,1,1-Trichloroethane (CAS No. 71-55-6, RCRA Waste No. U226)	1,000
	(e) Carbon tetrachloride (CAS No. 56-23-5, RCRA Waste No. U211)	10
	(f) Chlorinated hydrocarbons	5,000
F002	The following spent halogenated solvents:	10
	(a) Tetrachloroethylene (CAS No. 127-18-4, RCRA Waste No. U210)	100
	(b) Methylene chloride (CAS No. 75-09-2, RCRA Waste No. U080)	1,000
	(c) Trichloroethylene (CAS No. 79-01-6, RCRA Waste No. U228)	100
	(d) 1,1,1-Trichloroethane (CAS No. 71-55-6, RCRA Waste No. U226)	1,000
	(e) Chlorobenzene (CAS No. 108-90-7, RCRA Waste No. U037)	100
	(f) 1,1,2-Trichloro-1,2,2-trifluoroethane (CAS No. 76-13-1)	5,000
	(g) o-Dichlorobenzene (CAS No. 95-50-1, RCRA Waste No. U070)	100
	(h) Trichlorofluoromethane (CAS No. 75-69-4, RCRA Waste No. U121)	5,000
	(i) 1,1,2-Trichloroethane (CAS No. 79-00-5, RCRA Waste No. U227)	100
F003	The following spent non-halogenated solvents and still bottoms from recovery:	100
	(a) Xylene (CAS No. 1330-20-7, RCRA Waste No. U239)	1,000
	(b) Acetone (CAS No. 67-64-1, RCRA Waste No. U002)	5,000
	(c) Ethyl acetate (CAS No. 141-78-6, RCRA Waste No. U112)	5,000
	(d) Ethylbenzene (CAS No. 100-41-4)	1,000
	(e) Ethyl ether (CAS No. 60-29-7, RCRA Waste No. U117)	100
	(f) Methyl isobutyl ketone (CAS No. 108-10-1, RCRA Waste No. U161)	5,000
	(g) n-Butyl alcohol (CAS No. 71-36-3, RCRA Waste No. U031)	5,000
	(h) Cyclohexanone (CAS No. 108-94-1, RCRA Waste No. U057)	5,000
	(i) Methanol (CAS No. 67-56-1, RCRA Waste No. U154)	5,000
F004	The following spent non-halogenated solvents and still bottoms from recovery:	100
	(a) Cresols/cresylic acid (CAS No. 1319-77-3, RCRA Waste No. U052)	1,000
	(b) Nitrobenzene (CAS No. 98-95-3, RCRA Waste No. U169)	1,000
F005	The following spent non-halogenated solvents and still bottoms from recovery:	100
	(a) Toluene (CAS No. 108-88-3, RCRA Waste No. U220)	1,000
	(b) Methyl ethyl ketone (CAS No. 78-93-3, RCRA Waste No. U159)	5,000
	(c) Carbon disulfide (CAS No. 75-15-0, RCRA Waste No. P022)	100
	(d) Isobutanol (CAS No. 78-83-1, RCRA Waste No. U140)	5,000
	(e) Pyridine (CAS No. 110-86-1, RCRA Waste No. U196)	1,000
F006	Wastewater treatment sludges from electroplating operations (w/some exceptions)	10
F007	Spent cyanide plating bath solns. from electroplating	10
F008	Plating bath residues from electroplating where cyanides are used	10
F009	Spent stripping/cleaning bath solns. from electroplating where cyanides are used	10
F010	Quenching bath residues from metal heat treating where cyanides are used	10
F011	Spent cyanide soln. from salt bath pot cleaning from metal heat treating	10
F012	Quenching wastewater sludges from metal heat treating where cyanides are used	10

RCRA WASTE STREAMS AND UNLISTED HAZARDOUS WASTES
THE DESCRIPTIONS OF THE WASTE STREAMS HAVE BEEN TRUNCATED.
THIS LIST SHOULD BE USED FOR REFERENCE ONLY
COMPLIANCE INFORMATION CAN BE FOUND IN 40 CFR PART 302 AND TABLE 302.4

RCRA Code	Description	RQ (lbs)
F019	Wastewater treatment sludges from chemical conversion aluminum coating	10
F020	Wastes from prod. or use of tri/tetrachlorophenol or derivative intermediates	1
F021	Wastes from prod. or use of pentachlorophenol or intermediates for derivatives	1
F022	Wastes from use of tetra/penta/hexachlorobenzenes under alkaline conditions	1
F023	Wastes from mat. prod. on equip. previously used for tri\ tetrachlorophenol	1
F024	Wastes from production of chlorinated aliphatic hydrocarbons (C1-C5)	1
F025	Lights ends, filters from prod. of chlorinated aliphatic hydrocarbons (C1-C5)	1
F026	Waste from equipment previously used to prod. tetra/penta/hexachlorobenzenes	1
F027	Discarded formulations containing tri/tetra/pentachlorophenols or derivatives	1
F028	Residues from incineration of soil contaminated w/ F020,F021,F022,F023,F026,F027	1
F032	Wastewaters, process residuals from wood preserving using chlorophenolic solns.	1
F034	Wastewaters, process residuals from wood preserving using creosote formulations	1
F035	Wastewaters, process residuals from wood preserving using arsenic or chromium	1
F037	Petroleum refinery primary oil/water/solids separation sludge	1
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge	1
K001	Wastewater treatment sludge from creosote/pentachlorophenol wood preserving	1
K002	Wastewater treatment sludge from prod. of chrome yellow and orange pigments	10
K003	Wastewater treatment sludge from prod. of molybdate orange pigments	10
K004	Wastewater treatment sludge from prod. of zinc yellow pigments	10
K005	Wastewater treatment sludge from prod. of chrome green pigments	10
K006	Wastewater treatment sludge from prod. of chrome oxide green pigments	10
K007	Wastewater treatment sludge from prod. of iron blue pigments	10
K008	Oven residue from prod. of chrome oxide green pigments	10
K009	Dist. bottoms from prod. of acetaldehyde from ethylene	10
K010	Dist. side cuts from prod. of acetaldehyde from ethylene	10
K011	Bottom stream from wastewater stripper in acrylonitrile prod.	10
K013	Bottom stream from acetonitrile column in acrylonitrile prod.	10
K014	Bottoms from acetonitrile purification column in acrylonitrile prod.	5,000
K015	Still bottoms from the dist. of benzyl chloride	10
K016	Heavy ends or dist. residues from prod. of carbon tetrachloride	1
K017	Heavy ends from the purification column in epichlorohydrin prod.	10
K018	Heavy ends from the fractionation column in ethyl chloride prod.	1
K019	Heavy ends from the dist. of ethylene dichloride during its prod.	1
K020	Heavy ends from the dist. of vinyl chloride during prod. of the monomer	1
K021	Aqueous spent antimony catalyst waste from fluoromethanes prod.	10
K022	Dist. bottom tars from prod. of phenol/acetone from cumene	1
K023	Dist. light ends from prod. of phthalic anhydride from naphthalene	5,000
K024	Dist. bottoms from prod. of phthalic anhydride from naphthalene	5,000
K025	Dist. bottoms from prod. of nitrobenzene by nitration of benzene	10
K026	Stripping still tails from the prod. of methyl ethyl pyridines	1,000
K027	Centrifuge/dist. residues from toluene diisocyanate prod.	10
K028	Spent catalyst from hydrochlorinator reactor in prod. of 1,1,1-trichloroethane	1
K029	Waste from product steam stripper in prod. of 1,1,1-trichloroethane	1

RCRA WASTE STREAMS AND UNLISTED HAZARDOUS WASTES
THE DESCRIPTIONS OF THE WASTE STREAMS HAVE BEEN TRUNCATED.
THIS LIST SHOULD BE USED FOR REFERENCE ONLY
COMPLIANCE INFORMATION CAN BE FOUND IN 40 CFR PART 302 AND TABLE 302.4

RCRA Code	Description	RQ (lbs)
K030	Column bottoms/heavy ends from prod. of trichloroethylene and perchloroethylene	1
K031	By-product salts generated in the prod. of MSMA and cacodylic acid	1
K032	Wastewater treatment sludge from the prod. of chlordane	10
K033	Wastewater/scrubwater from chlorination of cyclopentadiene in chlordane prod.	10
K034	Filter solids from filtration of hexachlorocyclopentadiene in chlordane prod.	10
K035	Wastewater treatment sludges from the prod. of creosote	1
K036	Still bottoms from toluene reclamation distillation in disulfoton prod.	1
K037	Wastewater treatment sludges from the prod. of disulfoton	1
K038	Wastewater from the washing and stripping of phorate production	10
K039	Filter cake from filtration of diethylphosphorodithioic acid in phorate prod.	10
K040	Wastewater treatment sludge from the prod. of phorate	10
K041	Wastewater treatment sludge from the prod. of toxaphene	1
K042	Heavy ends/residues from dist. of tetrachlorobenzene in 2,4,5-T prod.	10
K043	2,6-Dichlorophenol waste from the prod. of 2,4-D	10
K044	Wastewater treatment sludge from manuf. and processing of explosives	10
K045	Spent carbon from treatment of wastewater containing explosives	10
K046	Wastewater sludge from manuf.,formulating,loading of lead-based initiating compd	10
K047	Pink/red water from TNT operations	10
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	10
K049	Slop oil emulsion solids from the petroleum refining industry	10
K050	Heat exchanger bundle cleaning sludge from petroleum refining industry	10
K051	API separator sludge from the petroleum refining industry	10
K052	Tank bottoms (leaded) from the petroleum refining industry	10
K060	Ammonia still lime sludge from coking operations	1
K061	Emission control dust/sludge from primary prod. of steel in electric furnaces	10
K062	Spent pickle liquor generated by steel finishing (SIC codes 331 and 332)	10
K064	Acid plant blowdown slurry/sludge from blowdown slurry from primary copper prod.	10
K065	Surface impoundment solids at primary lead smelting facilities	10
K066	Sludge from treatment of wastewater/acid plant blowdown from primary zinc prod.	10
K069	Emission control dust/sludge from secondary lead smelting	10
K071	Brine purification muds from mercury cell process in chlorine production	1
K073	Chlorinated hydrocarbon waste from diaphragm cell process in chlorine production	10
K083	Distillation bottoms from aniline extraction	100
K084	Wastewater sludges from prod. of veterinary pharm. from arsenic compds.	1
K085	Distillation or fractionation column bottoms in prod. of chlorobenzenes	10
K086	Wastes/sludges from prod. of inks from chromium and lead-containing substances	10
K087	Decanter tank tar sludge from coking operations	100
K088	Spent potliners from primary aluminum reduction	10
K090	Emission control dust/sludge from ferrochromiumsilicon prod.	10
K091	Emission control dust/sludge from ferrochromium prod.	10
K093	Dist. light ends from prod. of phthalic anhydride by ortho-xylene	5,000
K094	Dist. bottoms in prod. of phthalic anhydride by ortho-xylene	5,000
K095	Distillation bottoms in prod. of 1,1,1-trichloroethane	100

RCRA WASTE STREAMS AND UNLISTED HAZARDOUS WASTES
THE DESCRIPTIONS OF THE WASTE STREAMS HAVE BEEN TRUNCATED.
THIS LIST SHOULD BE USED FOR REFERENCE ONLY
COMPLIANCE INFORMATION CAN BE FOUND IN 40 CFR PART 302 AND TABLE 302.4

RCRA Code	Description	RQ (lbs)
K096	Heavy ends from dist. column in prod. of 1,1,1-trichloroethane	100
K097	Vacuum stripper discharge from the chlordane chlorinator in prod. of chlordane	1
K098	Untreated process wastewater from the prod. of toxaphene	1
K099	Untreated wastewater from the prod. of 2,4-D	10
K100	Waste leaching soln from emission control dust/sludge in secondary lead smelting	10
K101	Dist. tar residue from aniline in prod. of veterinary pharm. from arsenic compd.	1
K102	Residue from activated carbon in prod. of veterinary pharm. from arsenic compds.	1
K103	Process residues from aniline extraction from the prod. of aniline	100
K104	Combined wastewater streams generated from prod. of nitrobenzene/aniline	10
K105	Aqueous stream from washing in prod. of chlorobenzenes	10
K106	Wastewater treatment sludge from mercury cell process in chlorine prod.	1
K107	Column bottoms from separation in prod. of UDMH from carboxylic acid hydrazides	10
K108	Condensed column overheads and vent gas from prod. of UDMH from -COOH hydrazides	10
K109	Spent filter catridges from purif. of UDMH prod. from carboxylic acid hydrazides	10
K110	Condensed column overheads from separation in UDMH prod. from -COOH hydrazides	10
K111	Product washwaters from prod. of dinitrotoluene via nitration of toluene	10
K112	Reaction by-product water from drying in toluenediamine prod from dinitrotoluene	10
K113	Condensed liquid light ends from purification of toluenediamine during its prod.	10
K114	Vicinals from purification of toluenediamine during its prod from dinitrotoluene	10
K115	Heavy ends from toluenediamine purification during prod. from dinitrotoluene	10
K116	Organic condensate from solvent recovery system in prod. of toluene diisocyanate	10
K117	Wastewater from vent gas scrubber in ethylene bromide prod by ethene bromination	1
K118	Spent absorbent solids in purification of ethylene dibromide in its prod.	1
K123	Process waterwater from the prod. of ethylenebisdithiocarbamic acid and salts	10
K124	Reactor vent scrubber water from prod of ethylenebisdithiocarbamic acid and salts	10
K125	Filtration/other solids from prod. of ethylenebisdithiocarbamic acid and salts	10
K126	Dust/sweepings from the prod. of ethylenebisdithiocarbamic acid and salts	10
K131	Wastewater and spent sulfuric acid from the prod. of methyl bromide	100
K132	Spent absorbent and wastewater solids from the prod. of methyl bromide	1,000
K136	Still bottoms from ethylene dibromide purif. in prod. by ethene bromination	1
K140	Floor sweepings, etc., from the production of 2,4,6-tribromophenol	100
K141	Process residues from coal tar recovery in coking	1
K142	Tar storage tank residues from coke prod. from coal or recovery of coke by-prods	1
K143	Process residues from recovery of light oil in coking	1
K144	Wastewater residues from light oil refining in coking	1
K145	Residues from naphthalene collection and recovery from coke by-products	1
K147	Tar storage tank residues from coal tar refining in coking	1
K148	Residues from coal tar distillation, including still bottoms, in coking	1
K149	Distillation bottoms from the prod. of chlorinated toluenes/benzoyl chlorides	10
K150	Organic residuals from Cl gas and HCl recovery from chlorinated toluene prod.	10
K151	Wastewater treatment sludge from production of chlorotoluenes/benzoyl chlorides	10
K156	Organic waste from production of carbamates and carbamoyl oximes	1*
K157	Wastewaters from production of carbamates and carbamoyl oximes (not sludges)	1*

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

RCRA WASTE STREAMS AND UNLISTED HAZARDOUS WASTES
THE DESCRIPTIONS OF THE WASTE STREAMS HAVE BEEN TRUNCATED.
THIS LIST SHOULD BE USED FOR REFERENCE ONLY
COMPLIANCE INFORMATION CAN BE FOUND IN 40 CFR PART 302 AND TABLE 302.4

RCRA Code	Description	RQ (lbs)
K158	Bag house dusts & filter/separation solids from prod of carbamates, carb oximes	1*
K159	Organics from treatment of thiocarbamate waste	1*
K161	Purif. solids/bag house dust/sweepings from prod of dithiocarbamate acids/salts	1*
K169	Crude oil storage tank sediment from refining operations	10
K170	Clarified slurry oil tank sediment of in-line filter/separation solids	1
K171	Spent hydrotreating catalyst	1
K172	Spent hydrotreating catalyst	1
D001	Unlisted hazardous wastes characteristic of ignitability	100
D002	Unlisted hazardous wastes characteristic of corrosivity	100
D003	Unlisted hazardous wastes characteristic of reactivity	100
	Unlisted hazardous wastes characteristic of toxicity:	
D004	Arsenic	1
D005	Barium	1,000
D006	Cadmium	10
D007	Chromium	10
D008	Lead	10
D009	Mercury	1
D010	Selenium	10
D011	Silver	1
D012	Endrin	1
D013	Lindane	1
D014	Methoxychlor	1
D015	Toxaphene	1
D016	2,4-D	100
D017	2,4,5-TP	100
D018	Benzene	10
D019	Carbon tetrachloride	10
D020	Chlordane	1
D021	Chlorobenzene	100
D022	Chloroform	10
D023	o-Cresol	100
D024	m-Cresol	100
D025	p-Cresol	100
D026	Cresol	100
D027	1,4-Dichlorobenzene	100
D028	1,2-Dichloroethane	100
D029	1,1-Dichloroethylene	100
D030	2,4-Dinitrotoluene	10
D031	Heptachlor (and epoxide)	1
D032	Hexachlorobenzene	10
D033	Hexachlorobutadiene	1
D034	Hexachloroethane	100
D035	Methyl ethyl ketone	5,000

* RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.

RCRA WASTE STREAMS AND UNLISTED HAZARDOUS WASTES
THE DESCRIPTIONS OF THE WASTE STREAMS HAVE BEEN TRUNCATED.
THIS LIST SHOULD BE USED FOR REFERENCE ONLY
COMPLIANCE INFORMATION CAN BE FOUND IN 40 CFR PART 302 AND TABLE 302.4

RCRA		RQ
Code	Description	(lbs)
D036	Nitrobenzene	1,000
D037	Pentachlorophenol	10
D038	Pyridine	1,000
D039	Tetrachloroethylene	100
D040	Trichloroethylene	100
D041	2,4,5-Trichlorophenol	10
D042	2,4,6-Trichlorophenol	10
D043	Vinyl chloride	1

Information Sources

For copies of this or other Title III or CAA 112(r) documents, contact:

U.S. Environmental Protection Agency
National Center for Environmental Publications and Information (NCEPI)
P.O. Box 42419
Cincinnati, OH 45242
1-800/490-9198
FAX: (513) 489-8695

<http://www.epa.gov/ncepihom/orderpub.html>

Please order using the full publication title and publication number on the title page. The publication number for this document is 550-B-98-017. There is a limit of five titles in a two-week period.

A dBASE version of this consolidated list, with a print program, is available to be downloaded from the Internet at:

<http://www.epa.gov/swercepp/tools.html>

The dBASE files are provided for users who wish to manipulate the lists or incorporate them into other databases.

A .PDF version of this document, which can be downloaded and printed, is available under General Publications at:

<http://www.epa.gov/swercepp/pubs.html>

Questions concerning changes to the list or other aspects of Title III of SARA and section 112(r) of the Clean Air Act may be addressed to:

Emergency Planning and Community Right-to-Know Information Hotline
U.S. Environmental Protection Agency (5104)
401 M Street, SW
Washington, DC 20460

1-800-424-9346 or 703-412-9810 (TDD: 800-553-7672)
9:00 am to 6:00 pm, Eastern Time, Monday - Friday.

COMNAVREGSWINST 5090.1C
16 Nov 00

This page intentionally left blank.

Appendix N

References

Key references that are used in this text are listed below:

- a. OPNAVINST 5090.1 series, "Environmental and Natural Resources Protection Manual".
- b. CINCPACFLTINST 5400.12 series, "Area Coordination Manual".
- c. 40 CFR , Part 300, "National Oil and Hazardous Substance Pollution Contingency Plan".

Background materials that are used in the making of this document are listed below:

- a. NEESA 15-022, "Hazardous Substance Spill Contingency Planning Manual", May 1986.
- b. NEESA 7-029, "Oil Spill Contingency Planning Manual".
- c. Region IX, "Mainland Oil and Hazardous Substance Pollution Contingency Plan", March 1990.
- d. NAVFAC P-908, "Oil Spill Control for Inland Waters and Harbors", January 1996.
- e. Defense Reutilization and Marketing Service Instruction 6050.1 services.
- f. U. S. Navy Supervisor of Salvage Oil Spill Contingency Planning Guide.
- g. NEESA 7-21A, "Oil and Hazardous Substance Spill Response Activity Information Directory (AID)", March 1990.
- h. COMNAVRSWINST 3440.1 Series, "CNRSW San Diego Disaster Preparedness Officer and Disaster Preparedness Plan".
- i. U. S. Coast Guard MSO San Diego District XI, "Oil and Hazardous Substance Pollution Contingency Plan".
- j. U. S. Coast Guard MSO LosAngeles/Long Beach District XI, "Oil and Hazardous Substance Pollution Contingency Plan".
- k. U. S. Coast Guard MSO San Francisco District XI, "Oil and Hazardous Substance Pollution Contingency Plan".

COMNAVREGSWINST 5090.1C
16 Nov 00

This page intentionally left blank.

Appendix O

LIST OF ACRONYMS

The following is a list of acronyms associated with oil and hazardous substance spill response. Some are included in this plan while others are provided for reference purposes.

A2R2	Annual Allowance and Requirements Review
ACOS	Assistant Chief of Staff
ACP	Area Contingency Plan
AOR	Area of Responsibility
ASDO	Assistant Staff Duty Officer
ATOP	Activity OHS Training Plan
AST	Aboveground storage tank
BOA	Basic Ordering Agreement
CDO	Command Duty Officer
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHRIS	Chemical Hazards Response Information System
CHT	Collection, Holding, and Transfer System (Ship Sewage)
CINCPACFLT	Commander-in-Chief, Pacific Fleet
CNO	Chief of Naval Operations
CO	Commanding Officer
COE	Corps of Engineers (U.S. Army)
COFR	Certificate of Financial Responsibility
COMNAVSURFPAC	Commander, Naval Surface Forces, Pacific Fleet
CONUS	Continental United States
COR	Central Oil Recovery
COTP	Captain of the Port
CWA	Clean Water Act
DFM	Diesel fuel, marine
DLA	Defense Logistics Agency
DOD	U.S. Department of Defense
DON	U.S. Department of the Navy
DOT	U.S. Department of Transportation
DRMO	Defense Reutilization and Marketing Office
EEZ	Exclusive Economic Zone
EFA	Engineering Field Activity (of NAVFAC)
EFD	Engineering Field Division (of NAVFAC)
EHS	Extremely hazardous substance
EO	Executive Order
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERT	Environmental Response Team

16 Nov 00

ESA	Endangered Species Act
FEMA	U.S. Federal Emergency Management Agency
FIC	Facility Incident Commander
FLRT	Field Level Response Team
FOSC	Federal On-Scene Coordinator
FRP	Facility Response Team
GLO	Government Liaison Officer
HAZMAT	Hazardous material
HM	Hazardous material
HS	Hazardous substance
HW	Hazardous waste
IAP	Incident Action Plan
IAW	In accordance with
IC	Incident Commander
ICS	Incident Command System
IDHL	Immediate Danger to Health or Life
IMO	International Maritime Organization
ISIC	Immediate Superior in Command
JAG	Judge Advocate General
JP	Jet Petroleum
LAC	Local Area Coordinator
LEPC	Local Emergency Planning Committee
MARAD	Maritime Administration
MARPOL	International Convention for the Prevention of Pollution from Ships
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement
MSC	Military Sealift Command
MSO	Marine Safety Office (USCG Local Office)
NBC	Naval Base Coronado
NBPL	Naval Base Point Loma
NBSD	Naval Base San Diego
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFESC	Naval Facilities Engineering Service Center
NICS	Navy Incident Command System
NOAA	National Oceanic and Atmospheric Administration
NOSC	Navy On-Scene Coordinator
NOSCDR	Navy On-Scene Commander
NRC	National Response Center (USCG)
NRDA	Natural Resource Damage Assessment
NRT	National Response Team
OES	Office of Emergency Services
OHS	Oil and hazardous substances
OPA 90	Oil Pollution Act of 1990 (Public Law 101-380 of 18 Aug 90)
OPORD	Operational Order
OPREP	Operational Report
ORM	Operation Risk Management

OSC	On-Scene Coordinator
OSRV	Oil Spill Response Vessel
OSHA	Occupational Safety and Health Administration
PAO	Public Affairs Office
PIAT	Public Information Assist Team
POC	Point of contact
POTW	Publicly Owned Treatment Works
PPE	Personal protective equipment
PREP	Preparedness-for-Response Exercise Program (USCG)
QI	Qualified Individual
RCP	Regional Contingency Plan
RCRA	Resource Conservation and Recovery Act
ROSWG	Regional Oil Spill Working Group
RP	Responsible Party
RQ	Reportable quantity (of hazardous substances)
RRC	Regional Response Center
RRT	Regional Response Team
SARA	Superfund Amendments and Reauthorization Act of 1986
SDO	Staff Duty Officer
SERC	State Emergency Response Commission
SIC	Standard Industrial Classification (codes)
SMT	Spill Management Team
SOPA	Senior Officer Present Afloat/Ashore
SPCC	Spill Prevention, Control, and Countermeasures (plan)
SSC	Scientific Support Coordinator (NOAA)
SUPSALV	Supervisor of Salvage (Navy)
TYCOM	Type Commander
UC	Unified Command
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
USNPS	U.S. National Park Service
UST	Underground Storage Tank
VOSS	Vessel of Opportunity Skimmer System

COMNAVREGSWINST 5090.1C
16 Nov 00

This page left blank intentionally.

Appendix P Non-Navy Port Checklist

In the event of a ship generated oil spill while visiting a non-Navy port in California, the following procedures apply:



*If discharge creates a sheen,
IT IS A REPORTABLE QUANTITY.*

1. Take immediate actions to **CONTAIN**, **CONTROL**, and **MITIGATE** the spill.

2. **ASSESS** the incident, and LOG the following information.

a. Ship/POC Name:	
b. Location:	
c. Type of Product Spilled:	
d. Quantity:	
e. Immediate threat to public health:	
f. Potential impacts/press interest:	

3. If reportable, immediately **CALL** the following and provide the above information, as a minimum:

NAME	PHONE	TIME	INITIALS	CASE NUMBER
Inchcape Shipping (Husbanding Agent-HA)	(415) 546-6920			
National Response Center (NRC)	(800) 424-8802			
CA Office of Emergency Services (OES)	(800) 852-7550			
NOSC (COMNAVREGSW)	(619) 556-8006			
In addition:				
<i>For Los Angeles/Long Beach, Santa Barbara:</i>				
Marine Safety Office (MSO) LA/LB	(562) 980-4445			

16 Nov 00

For Monterey, San Francisco Bay, Eureka, Crescent City:Marine Safety Office (MSO)
San Francisco

(510) 437-3073

4. Ship CO is ***Navy On-Scene Incident Commander*** (until relieved of such duties by NOSC, if necessary).



***Coast Guard retains overall authority for spill response,
but will normally not direct actions
unless the response is not satisfactory.
HA will provide response team and
required equipment, i.e., boom, skimmer, etc.,
but due to location of ships and response assets,
expect a delay in response time.***

5. Ship provide periodic situation appraisals to NOSC at (619) 556-8006.

6. Upon completion of the response (consult Coast Guard on-scene personnel) notify:

NAME	PHONE	TIME	INITIALS
NOSC (COMNAVREGSW)	(619) 532-1828		
National Response Center (NRC)	(800) 424-8802		
Inchcape Shipping Services	(415) 546-6920		
CA Office of Emergency Services (OES)	(800) 852-7550		

7. Submit required message report, Oil Spill Report (OPNAV 5090-2) within 24 hours (format provided in this chapter). Based on seriousness or sensitivity of the incident, if other message type deemed appropriate submit IAW standard requirements.